HUGHS CREEK
WBID 1814

Recreational Use Attainability Analysis

May 2007

PREPARED FOR:
RFP No: B3Z07134
Water Quality Monitoring & Assessment Section
Water Protection Program
Division of Environmental Quality
MISSOURI DEPARTMENT OF NATURAL RESOURCES
301 West High Street
Jefferson City, MO 65102

PREPARED BY:
MEC WATER RESOURCES, INC.
1123 Wilkes Blvd., Ste. 400
Columbia, MO 65201

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):	Hughes Creek
Missouri Water Body Identification (WBID) Number:	1814
8-digit HUC: 07140105	County: Cape Girardeau
Upstream Legal Description (from Table H):	20, 33N, 12E
Downstream Legal Description(from Table H):	19, 33N, 12E
Number of sites evaluated	3
List all sites numbers, listed consequently upstream to downstream: Sites - 1, 2, 3	

II. Subesegmentation (fill this section out only in cases where subsegmentation is being proposed)

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)			
Upstream Coordinates: UTM X	Y	Downstream Coordinates: UTM X	Y
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 Processing			
HORIZONTAL ACCURACY ESTIMATE			
GPS Data Quality		Interpolation Data Quality	
FOM	± _____ Meters	Source Map Scale: 1:24,000 1:100,000 Other _____	
EPE	± _____ Feet or ± _____ Meters		
PDOP		± _____ Feet or ± _____ Meters	

III. Discharger Facility Information (list all permitted dischargers on the stream)

Discharger Facility Name(s):	Oak Ridge R-VI School
Discharger Permit Number(s):	MO0109983

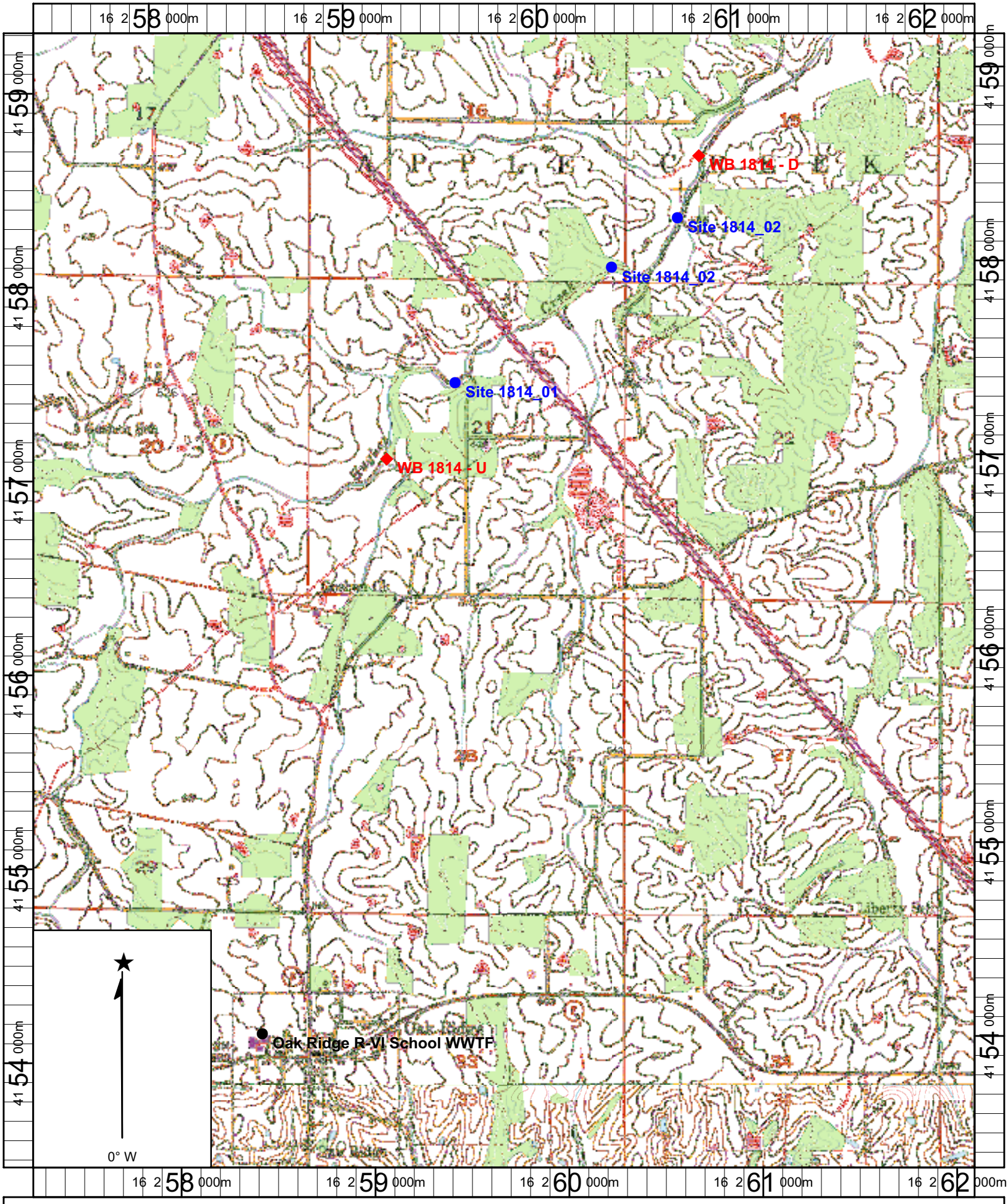
IV. UAA Surveyor (please print legibly)

Name of Surveyor: Abbey Wolschmeyer	Telephone Number: (573) 634-7078
Organization/Employer: ERC	
Position: Field Manager	

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

Signed: Robert A Duncan **Date:** 5-24-2007

Rec 5-30-07



Name: OAK RIDGE
Date: 5/28/2007
Scale: 1 inch equals 2000 feet

Location: 16 0259746 E 4156316 N

Copyright (C) 2000, Maptech, Inc.

WBID# 1814
Site# 1

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(must be completed for each site)

Date & Time: 05/23/07 07:33	Site Location Description (e.g., road crossing): Co Rd 429 to private road - downstream
Personnel (Data Collectors): Libby + Anna	
Current Weather Conditions: partly cloudy ~65°	Facility Name: Oak Ridge R-VI School
	Permit Number: MO 0109983
Weather Conditions for Past 10 days:	
Drought Conditions?: No drought ☒; Phase I ☐; Phase II ☐; Phase III ☐; Phase IV ☐; Unknown ☐	

Site Locations:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)

Site GPS Coordinates: UTM X: 16S 0259934 Y: 4157447

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 Processing			

HORIZONTAL ACCURACY ESTIMATE

GPS Data Quality		Interpolation Data Quality
FOM	± _____ Meters	Source Map Scale: 1:24,000 1:100,000 Other _____
EPE	± 44 Feet or ± _____ Meters	± _____ Feet or ± _____ Meters
PDOP		

Photos:

Photo ID# (WBID_Site#_##)	Photo Purpose and Direction (upstream, downstream, other)	Photo ID# (WBID_Site#_##)	Photo Purpose and Direction (upstream, downstream, other)
C49	Downstream T1	C46	Upstream T1

Uses Observed*: (Uses actually observed at time of survey.)

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☐ Wading	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☒ None of the above	☐ 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.)

☐ City/county parks	☐ Playgrounds	☐ MDC conservation lands	☐ Urban areas	☐ Campgrounds
☐ Boating accesses	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ No trespass sign	☐ Fence	☐ Steep slopes	☒ None of the above	☒ Other:

Comments: Wooded pasture

WBID# 1814
Site# 1

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(must be completed for each site)

Indications of Human Use*: (attach photos)

☐ Roads	☐ Rope swings	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Camping Sites		☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☐ Other:
Comments: NONE (private road through stream to access more land)					

Stream Morphology:

Upstream View's Physical Descriptions: 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	Transect (#)	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE						
RUN						
POOL						

Downstream View's Physical Descriptions: 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					

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

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

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

thick filamentous algae strings + mats covering rocks - 90% cover

Water Characteristics*: (Mark all that apply.)

ODOR:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
COLOR:	☐ Clear	☐ Green	☐ Gray	☐ Milky	☑ Other: lightly turbid
BOTTOM DEPOSIT:	☐ Sludge	☐ Solids	☐ Fine sediments	☒ None	☐ Other:
WATER SURFACE DEPOSITION:	☐ Oil	☐ Scum	☑ Foam	☐ None	☐ 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 affect another use.

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

Surveyor's Signature: Alexis C Nelson Date of Survey: 05/23/07

Organization: ERC Position: Field Manager

ARC 5-30-07

Dun Prairie Rd. down CR 429 — PIC 70 – Downstream (01-01?) — COC — PIC 46 – Upstream (01-11)

MEC Recreational Use Attainability Analysis Field Survey Sheet

Waterbody ID: 1814 Site #: 1 (WBID_Site#) — Wypt 79

Estimated Channel Incision: 6.2 (m) (height between low bank width and water)

GPS Location (taken at transect 1):

UTM X: 1680259534 UTM Y: 4157447

Horizontal Accuracy Estimate (GPS Data Quality): +/- 44 (feet)

Average Stream Width: 11 (meters) Length of Survey Segment: 220 (meters) (20x average stream width)

Field Staff: Abby & Anna

Dissolved Oxygen

Dissolved Oxygen: 7.60 (mg/L)

Dissolved Oxygen: 83.7 (% sat)

Specific Cond: 469 (µS/cm)

Water Temperature: 20.14 (°C)

Time: 07:33

Transect Cross-Section

Measurement	01 Distance (m)	01 Depth (m)	02 Distance (m)	02 Depth (m)	03 Distance (m)	03 Depth (m)	04 Distance (m)	04 Depth (m)	05 Distance (m)	05 Depth (m)	06 Distance (m)	06 Depth (m)	07 Distance (m)	07 Depth (m)	08 Distance (m)	08 Depth (m)	09 Distance (m)	09 Depth (m)	10 Distance (m)	10 Depth (m)	11 Distance (m)	11 Depth (m)
1	0	0.02	0	0.07	0	0.02	0	0.01	0	0.04	0	0.01	0	0.05	0	0.01	0	0.01	0	0.01	0	0.01
2	0.8	0.06	1.03	0.10	0.98	0.10	1.03	0.29	1.11	0.32	0.94	0.06	1.22	0.04	1.53	0.02	0.64	0.03	1.26	0.1	1.47	0.40
3	1.6	0.05	2.06	0.14	1.96	0.07	2.06	0.30	2.22	0.26	1.88	0.35	2.44	0.05	3.06	0	1.28	0.07	2.52	0.09	2.94	0.23
4	2.4	0.05	3.09	0.13	2.94	0.10	3.09	0.35	3.33	0.26	2.82	0.40	3.66	0.09	4.59	0	1.92	0.10	3.78	0.13	4.41	0.36
5	3.2	0.06	4.12	0.16	3.92	0.26	4.12	0.35	4.44	0.29	3.76	0.44	4.88	0.07	6.12	0	2.56	0.11	5.04	0.06	5.88	0.29
6	4.0	0.04	5.15	0.24	4.90	0.26	5.15	0.34	5.55	0.30	4.7	0.42	6.1	0.10	7.65	0	3.2	0.11	6.6	0.12	7.35	0.24
7	4.8	0.04	6.18	0.18	5.88	0.27	6.18	0.35	6.66	0.33	5.64	0.42	7.32	0.16	9.18	0	3.84	0.12	7.86	0.13	8.82	0.32
8	5.6	0.03	7.21	0.20	6.86	0.29	7.21	0.36	7.77	0.32	6.58	0.43	8.54	0.19	10.71	0	4.48	0.12	9.12	0.16	10.29	0.33
9	6.4	0.03	8.24	0.16	7.84	0.26	8.24	0.35	8.88	0.33	7.52	0.49	9.76	0.21	12.24	0.01	5.12	0.17	10.38	0.23	11.76	0.08
10	7.2	0.01	9.27	0.16	8.82	0.09	9.27	0.31	9.99	0.35	8.46	0.53	10.98	0.26	13.77	0.09	5.76	0.18	11.64	0.27	13.23	0.15
11	8.0	0.01	10.30	0.14	9.8	0.10	10.3	0.32	11.1	0.03	9.4	0.28	12.2	0.29	15.3	0.10	6.4	0.13	12.6	0.32	14.7	0.10
12	8.9	0	10.32	0	—	0	—	0	11.14	0	9.45	0	12.22	0	15.34	0	6.5	0	12.62	0	14.9	0
Feature Type (riffle, run, or pool)	run		run		run		run		run		run		run		run		run		run		run	

Notes: Transects will be measured beginning on left descending bank and finishing on right descending bank.
GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.
Transects in order of up to downstream.
Mark dry depth measurements as 0; measurements less than 0.1m as <0.1; and greater than 1m as >1
Measurement 1 depth = 0.1m (unless depth is insufficient); Measurement 11 depth = 0.1m (unless depth is insufficient); Measurement 12 distance = entire wetted width distance and depth = 0m.

Signed: Anna E Wachmeyer Date: 5-23-07

QAC 5-30-07

WBID# 1814
Site# 2

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization
(must be completed for each site)

Date & Time: 05/23/07 08:54	Site Location Description (e.g., road crossing): Co Rd 510 - cross low water - upstream pt where Rd curves away from stream - up
Personnel (Data Collectors): Abbey + Anna	
Current Weather Conditions: partly cloudy ~72°F	Facility Name: Oak Ridge R-VI School
	Permit Number: MO 0109983
Weather Conditions for Past 10 days:	
Drought Conditions?: No drought ☒; Phase I ☐; Phase II ☐; Phase III ☐; Phase IV ☐; Unknown ☐	

Site Locations:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)

Site GPS Coordinates: UTM X: 16S 0260360 Y: 4158014

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 Processing			

HORIZONTAL ACCURACY ESTIMATE

GPS Data Quality		Interpolation Data Quality
FOM	± ____ Meters	Source Map Scale: 1:24,000 1:100,000 Other ____
EPE	± 29 Feet or ± ____ Meters	± ____ Feet or ± ____ Meters
PDOP		

Photos:

Photo ID# (WBID_Site#_##)	Photo Purpose and Direction (upstream, downstream, other)	Photo ID# (WBID_Site#_##)	Photo Purpose and Direction (upstream, downstream, other)
C47	Downstream T1	C51	chairs by Rd + path - not facing stream T11
C48	Upstream T11	C52	foot path to stream by chairs T11

Uses Observed*: (Uses actually observed at time of survey.)

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☐ Wading	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☒ None of the above	☐ 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.)

☐ City/county parks	☐ Playgrounds	☐ MDC conservation lands	☐ Urban areas	☐ Campgrounds
☐ Boating accesses	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ No trespass sign	☐ Fence	☐ Steep slopes	☒ None of the above	☒ Other:

Comments: County Rd, Wooded, pasture

WBID# 1814
Site# 2

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(must be completed for each site)

Indications of Human Use*: (attach photos)

☐ Roads	☐ Rope swings	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Camping Sites		☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☒ Other:
Comments: 2 lawn chairs by road - fairly near stream (but not facing) C51 - chairs by road/stream C52 - footpath by chairs to stream					

Stream Morphology:

Upstream View's Physical Descriptions: 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	Transect (#)	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE						
RUN						
POOL						

Downstream View's Physical Descriptions: 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					

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

% Cobble	% Gravel	% Sand	% Silt	% Mud/Clay	% Bedrock
	10				90

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

filamentous algae hairs on bedrock - 80% cover

Water Characteristics*: (Mark all that apply.)

ODOR:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
COLOR:	☐ Clear	☐ Green	☐ Gray	☐ Milky	☒ Other: lightly turbid
BOTTOM DEPOSIT:	☐ Sludge	☐ Solids	☐ Fine sediments	☒ None	☐ Other:
WATER SURFACE DEPOSITION:	☐ Oil	☐ Scum	☒ Foam	☐ None	☐ 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 affect another use.

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

Surveyor's Signature: Alisyn L Wilmyer Date of Survey: 05/23/07

Organization: ERC Position: Field Manager

QAC 5-30-07

CDC

Pic 47 - Downstream 102-1

Pic 48 - Upstream 102-11

MEC Recreational Use Attainability Analysis Field Survey Sheet

Waterbody ID: 1814 Site #: 2 (WBID_Site#) Wypt 80

Estimated Channel Incision: 0.3 (m) (height between low bank width and water)

GPS Location (taken at transect 1):

UTM X: 16 S 0260365 UTM Y: 4158014

Horizontal Accuracy Estimate (GPS Data Quality): +/- 29 (feet)

Average Stream Width: 11.0 (meters) Length of Survey Segment: 220 (meters) (20x average stream width)

Field Staff: Abby & Anna

Dissolved Oxygen

Dissolved Oxygen: 6.65 (mg/L)

Dissolved Oxygen: 72.9 (% sat)

Specific Cond: 467 (µS/cm)

Water Temperature: 19.77 (°C)

Time: 08:54

51 - chan RB

52 - path foot + 11

Transect Cross-Section

Measurement	01		02		03		04		05		06		07		08		09		10		11	
	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
1	0	0.01	0	0.01	0	0.10	0	0.01	0	0.01	0	0.01	0	0.01	0	0.02	0	0.09	0	0.01	0	0.14
2	1.125	0.34	0.94	0.11	0.92	0.03	0.832	0.56	0.784	0.10	0.84	0.07	0.877	0.21	0.81	0.00	1.22	0.00	0.597	0.08	1.29	0.33
3	2.25	0.40	1.88	0.00	1.84	0.28	1.669	0.62	1.568	0.07	1.68	0.17	1.754	0.26	1.62	0.10	2.44	0.16	1.194	0.05	2.592	0.27
4	3.375	0.46	2.92	0.00	2.76	0.34	2.496	1.05	2.352	0.08	2.52	0.22	2.631	0.21	2.43	0.00	3.66	0.00	1.791	0.09	3.888	0.32
5	4.5	0.40	3.76	0.04	3.68	0.48	3.328	1.05	3.136	0.07	3.36	0.20	3.508	0.42	3.24	0.46	4.88	0.00	2.388	0.20	5.184	0.27
6	5.625	0.42	4.7	0.11	4.6	0.49	4.16	0.95	3.92	0.10	4.2	0.17	4.385	0.44	4.05	0.00	6.10	0.00	2.985	0.24	6.48	0.32
7	6.75	0.30	5.64	0.12	5.52	0.30	4.992	0.78	4.704	0.90	5.04	0.21	5.262	0.42	4.86	0.31	7.32	0.20	3.582	0.20	7.776	0.28
8	7.875	0.31	6.58	0.08	6.44	0.30	5.824	0.58	5.488	0.40	5.88	0.16	6.139	0.39	5.67	0.00	8.54	0.20	4.179	0.25	9.072	0.27
9	9.0	0.21	7.52	0.10	7.36	0.18	6.656	0.30	6.272	0.39	6.72	0.15	7.016	0.42	6.48	0.37	9.76	0.05	4.776	0.37	10.368	0.15
10	10.125	0.23	8.46	0.09	8.28	0.09	7.488	0.14	7.056	0.19	7.56	0.08	7.893	0.35	7.29	0.22	10.98	0.10	5.373	0.38	11.664	0.15
11	11.25	0.04	9.4	0.01	9.2	0.02	8.32	0.01	7.84	0.02	8.4	0.01	8.77	0.05	8.1	0.02	12.2	0.10	5.97	0.10	12.96	0.08
12	11.3	0	9.44	0	9.4	0	8.35	0	7.9	0	8.7	0	10.71	0	11.5	0	12.87	0	—	0	—	0
Feature Type (rifle, run, or pool)	run		riffle		run		run		run		run		run		run		run		run		run	

Notes: Transects will be measured beginning on left descending bank and finishing on right descending bank.
GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.
Transects in order of up to downstream.
Mark dry depth measurements as 0; measurements less than 0.1m as <0.1; and greater than 1m as >1
Measurement 1 depth = 0.1m (unless depth is insufficient); Measurement 11 depth = 0.1m (unless depth is insufficient); Measurement 12 distance = entire wetted width distance and depth = 0m.

Signed: Anna E Wisdom Date: 5-23-07

R & C 5-30-07

WBID# 1814
Site# 3

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization
(must be completed for each site)

Date & Time: 05/23/07 09:17	Site Location Description (e.g., road crossing): Co Rd 510 - culvert across from private drive - downstream
Personnel (Data Collectors): Abby + Anna	Facility Name: Oak Ridge R-VI School
Current Weather Conditions: partly cloudy ~74°F	Permit Number: MO0109983
Weather Conditions for Past 10 days:	
Drought Conditions?: No drought ☒; Phase I ☐; Phase II ☐; Phase III ☐; Phase IV ☐; Unknown ☐	

Site Locations:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)

Site GPS Coordinates: UTM X: 16 S 0207060 Y: 4158260

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 Processing			

HORIZONTAL ACCURACY ESTIMATE

GPS Data Quality		Interpolation Data Quality
FOM	±_____Meters	Source Map Scale: 1:24,000 1:100,000 Other _____
EPE	± 9.5 Feet or ±_____Meters	±_____Feet or ±_____Meters
PDOP		

Photos:

Photo ID# (WBID_Site#_##)	Photo Purpose and Direction (upstream, downstream, other)	Photo ID# (WBID_Site#_##)	Photo Purpose and Direction (upstream, downstream, other)
C49	Downstream T1	C50	Upstream T11

Uses Observed*: (Uses actually observed at time of survey.)

☐ Swimming	☐ Skin diving	☐ SCUBA diving	☐ Tubing	☐ Water skiing
☐ Wind surfing	☐ Kayaking	☐ Boating	☐ Wading	☐ Rafting
☐ Hunting	☐ Trapping	☐ Fishing	☒ None of the above	☐ 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.)

☐ City/county parks	☐ Playgrounds	☐ MDC conservation lands	☐ Urban areas	☐ Campgrounds
☐ Boating accesses	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ No trespass sign	☐ Fence	☒ Steep slopes	☐ None of the above	☒ Other:

Comments: wooded + Co Rd

WBID# 1814
Site# 3

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(must be completed for each site)

Indications of Human Use*: (attach photos)

☐ Roads	☐ Rope swings	☐ Foot paths/prints	☐ Dock/platform	☐ Livestock Watering	☐ RV / ATV Tracks
☐ Camping Sites		☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☐ Other:
Comments: NONE					

Stream Morphology:

Upstream View's Physical Descriptions: 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	Transect (#)	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE						
RUN						
POOL						

Downstream View's Physical Descriptions: 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					

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

% Cobble	% Gravel	% Sand	% Silt	% Mud/Clay	% Bedrock
	5				95

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

heavy cover of filamentous algae on bottom- 90%
lots of crawdads

Water Characteristics*: (Mark all that apply.)

ODOR:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
COLOR:	☐ Clear	☐ Green	☐ Gray	☐ Milky	☒ Other: lightly turbid
BOTTOM DEPOSIT:	☐ Sludge	☐ Solids	☐ Fine sediments	☒ None	☐ Other:
WATER SURFACE DEPOSITION:	☐ Oil	☐ Scum	☒ Foam	☐ None	☐ 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 affect another use.

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

Surveyor's Signature: Alicia L Wildhaber Date of Survey: 05/23/07

Organization: ERC Position: Field Manager

RUC 5-30-07

CDC

Pic - 49 - Downstream (037

Pic - 50 - Upstream (03-11)

MEC Recreational Use Attainability Analysis Field Survey Sheet

Waterbody ID: 1814 Site #: 3 (WBID_Site#) Wypt 81

Estimated Channel Incision: 0.2 (m) (height between low bank width and water)

GPS Location (taken at transect 1):

UTM X: 10S 0260706 UTM Y: 4158260

Horizontal Accuracy Estimate (GPS Data Quality): +/- 20 (feet)

Average Stream Width: 9.5 (meters) Length of Survey Segment: 190 (meters) (20x average stream width)

Field Staff: Abby & Anna

Dissolved Oxygen

Dissolved Oxygen: 7.50 (mg/L)

Dissolved Oxygen: 84.6 (% sat)

Specific Cond: 442 (µS/cm)

Water Temperature: 21.21 (°C)

Time 09:47

Transect Cross-Section

Measurement	01		02		03		04		05		06		07		08		09		10		11	
	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
1	0	0.07	0	0.01	0	0.01	0	0.01	0	0.07	0	0.24	0	0.03	0	0.06	0	0.01	0	0.05	0	0.05
2	1.13	0.19	1.04	0.04	1.17	0.01	0.429	0.09	0.865	0.08	0.99	0.40	1.03	0.31	1.01	0.35	1.06	0.30	0.97	0.42	1.13	0.11
3	2.26	0.17	2.08	0.10	2.34	0.04	0.858	0.08	1.73	0.00	1.98	0.47	2.06	0.35	2.02	0.42	2.12	0.20	1.94	0.14	2.26	1.15
4	3.39	0.21	3.12	0.10	3.51	0.05	1.287	0.05	2.595	0.05	2.97	0.56	3.09	0.38	3.03	0.36	3.18	0.18	2.91	0.16	3.39	0.19
5	4.52	0.25	4.16	0.14	4.68	0.04	1.716	0.10	3.46	0.15	3.96	0.52	4.12	0.36	4.04	0.44	4.24	0.18	3.88	0.20	4.52	0.21
6	5.65	0.31	5.20	0.17	5.85	0.08	2.146	0.12	4.325	0.15	4.95	0.55	5.15	0.36	5.05	0.35	5.3	0.24	4.85	0.22	5.65	0.26
7	6.78	0.28	6.24	0.23	7.02	0.26	2.574	0.14	5.19	0.15	5.94	0.29	6.18	0.27	6.06	0.41	6.36	0.32	5.82	0.25	6.78	0.12
8	7.91	0.30	7.28	0.24	8.19	0.19	3.003	0.17	6.055	0.15	6.93	0.10	7.21	0.23	7.07	0.46	7.42	0.31	6.79	0.02	7.91	0.06
9	9.04	0.32	8.32	0.22	9.36	0.16	3.432	0.19	6.92	0.20	7.92	0.14	8.24	0.17	8.08	0.24	8.48	0.36	7.76	0.03	9.04	0.05
10	10.17	0.32	9.36	0.25	10.53	0.14	3.861	0.20	7.785	0.24	8.91	0.05	9.27	0.17	9.09	0.05	9.54	0.22	8.73	0.06	10.17	0.18
11	11.3	0.03	10.4	0.04	11.7	0.01	4.29	0.19	8.65	0.15	9.9	0.01	10.3	0.01	10.1	0.02	10.6	0.09	9.7	0.01	11.3	0.07
12	11.34	0	10.5	0	11.73	0	—	0	8.7	0	10.2	0	10.5	0	—	0	—	0	9.98	0	11.4	0
Feature Type (riffle, run, or pool)	run		run		run		run		run		run		run		run		run		run		run	

Notes: Transects will be measured beginning on left descending bank and finishing on right descending bank.

GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.

Transects in order of up to downstream.

Mark dry depth measurements as 0; measurements less than 0.1m as <0.1; and greater than 1m as >1

Measurement 1 depth = 0.1m (unless depth is insufficient); Measurement 11 depth = 0.1m (unless depth is insufficient); Measurement 12 distance = entire wetted width distance and depth = 0m.

Signed: Anna E Welschmeyer Date: 5-23-07

Rec 5-30-07

WBID# 1814

Site# 1 Photo ID# C45, Downstream T1

Site# 1 Photo ID# C46, Upstream T11

Site# 2 Photo ID# C47, Downstream T1

Site# 2 Photo ID# C48, Upstream T11

WBID# 1814

Site# 2 Photo ID# C51, Chairs and path

Site# 2 Photo ID# C52, Footpath

Site# 3 Photo ID# C49, Downstream T1

Site# 3 Photo ID# C50, Upstream T11