Missouri
Department of
Natural Resources

Use Attainability Analysis

for

WBID 3138 St. Johns Ditch

Submitted by
MEC Water Resources, Inc.

to

Missouri Department of Natural Resources
Water Protection Program

Date Received: October 22, 2007

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):	St. Johns Ditch
Missouri Water Body Identification (WBID) Number:	3138
8-digit HUC: 08020201	County: New Madrid, Scott
Upstream Legal Description (from Table H):	29, 28N, 13E
Downstream Legal Description (from Table H):	29, 23N, 15E
Number of sites evaluated:	21
List all sites numbers, listed consequently upstream to downstream: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, + 21	

Site Locations Map(s): Attach a map of the entire segment with assessment sites clearly labeled. Mark any other items that may be of interest.

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

Facility Name(s) and Permit Number(s):
Sikeston WWTF MO 0035009
Morley WWTF MO 0126195

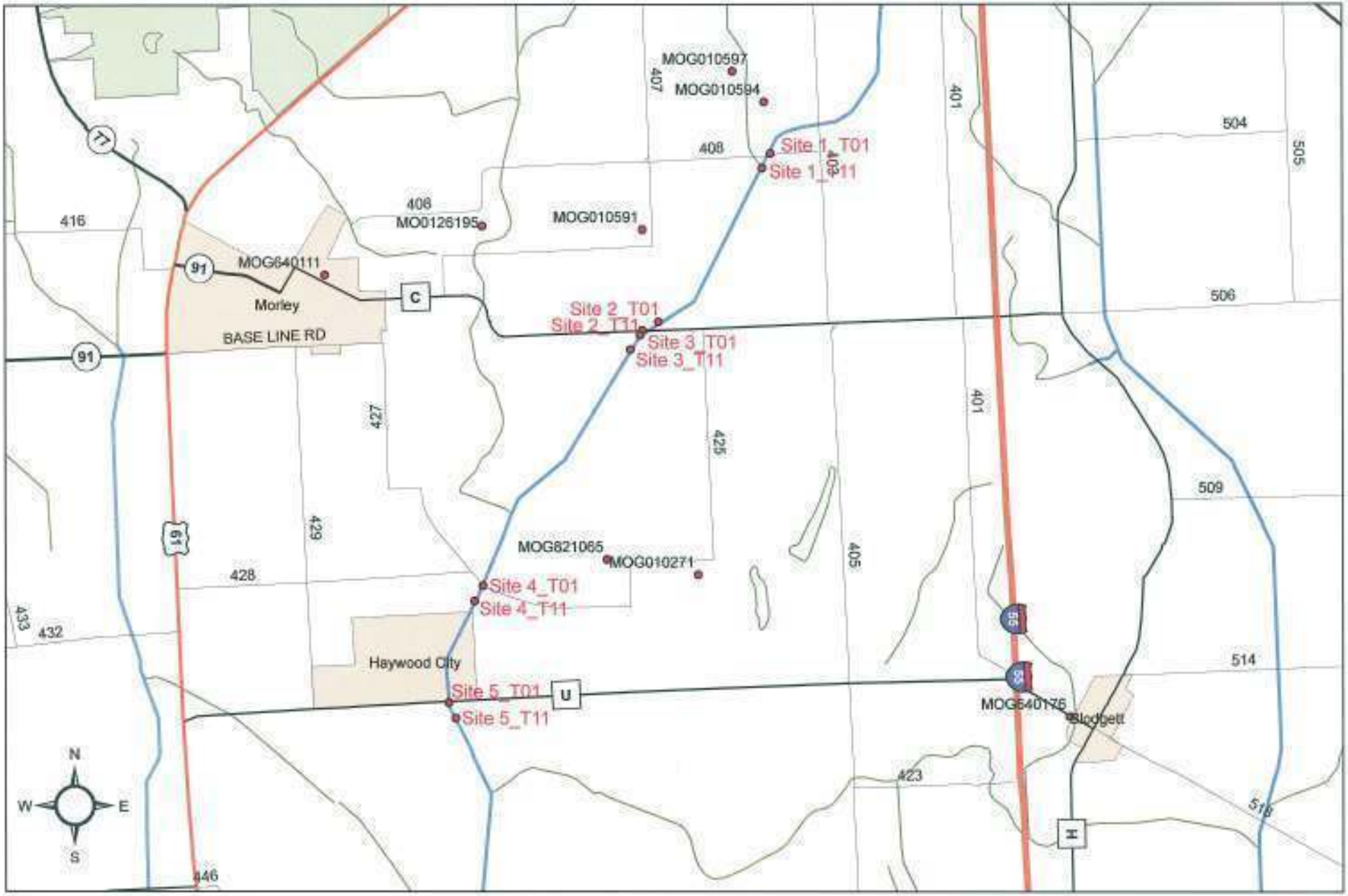
III. UAA Surveyor (please print legibly)

Name of Surveyor Abigail L. Welschmeyer	Telephone Number: (573) 634-7078
Organization/Employer: ERC	

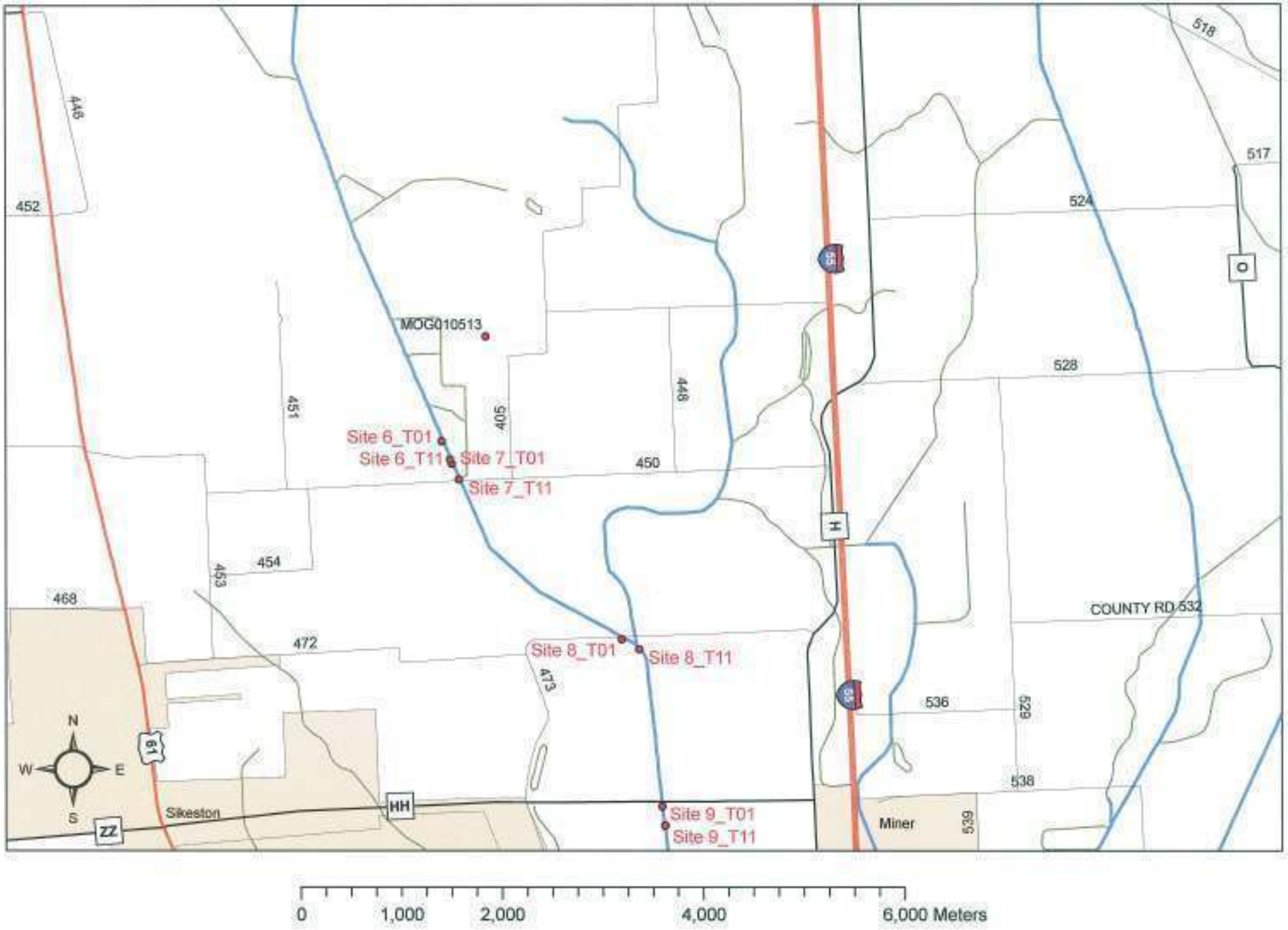
Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.

Signed: Abigail L. Welschmeyer **Date:** 9/21/07

WBID 3138 St. Johns Ditch - New Madrid and Scott Counties

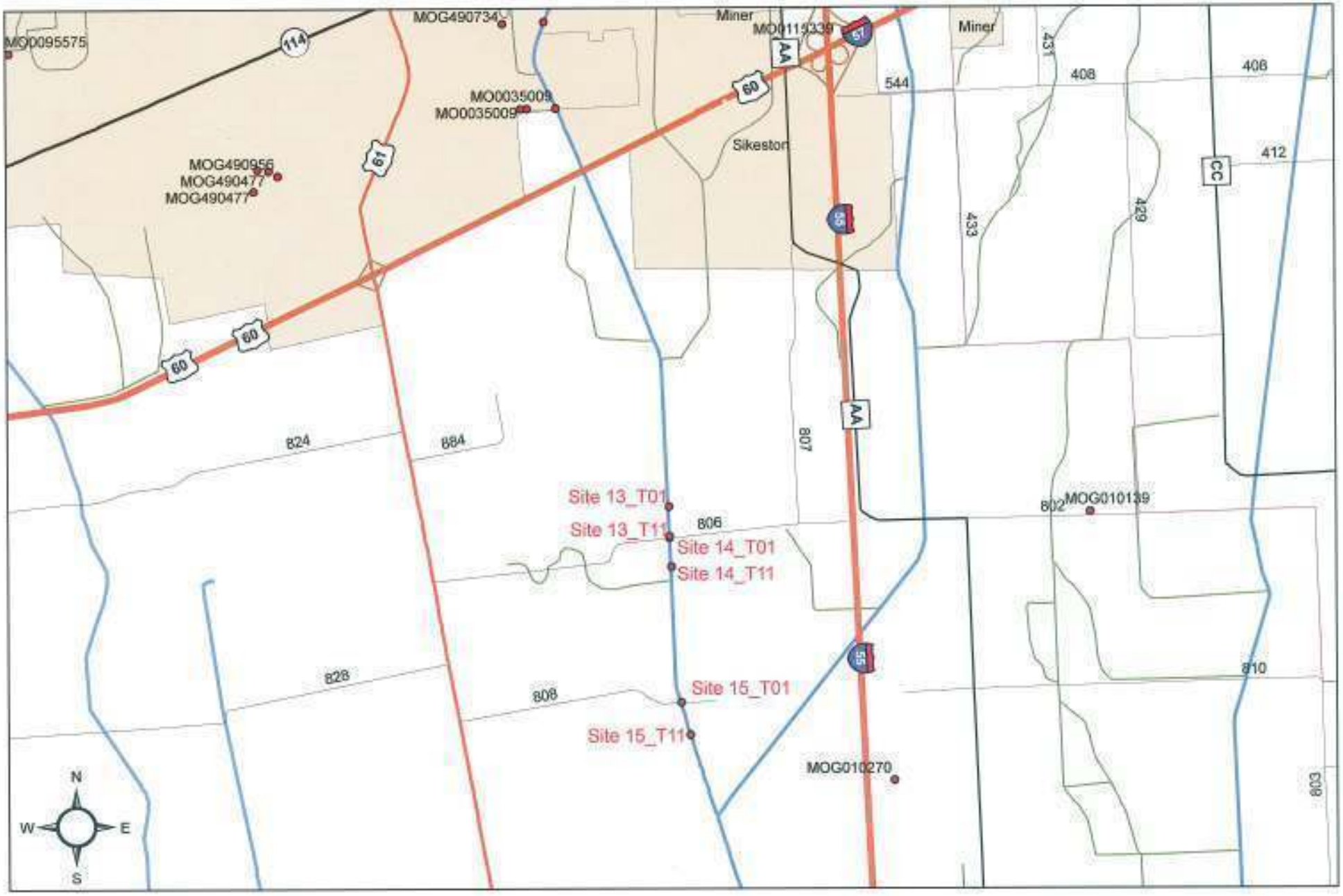


WBID 3138 St. Johns Ditch - New Madrid and Scott Counties



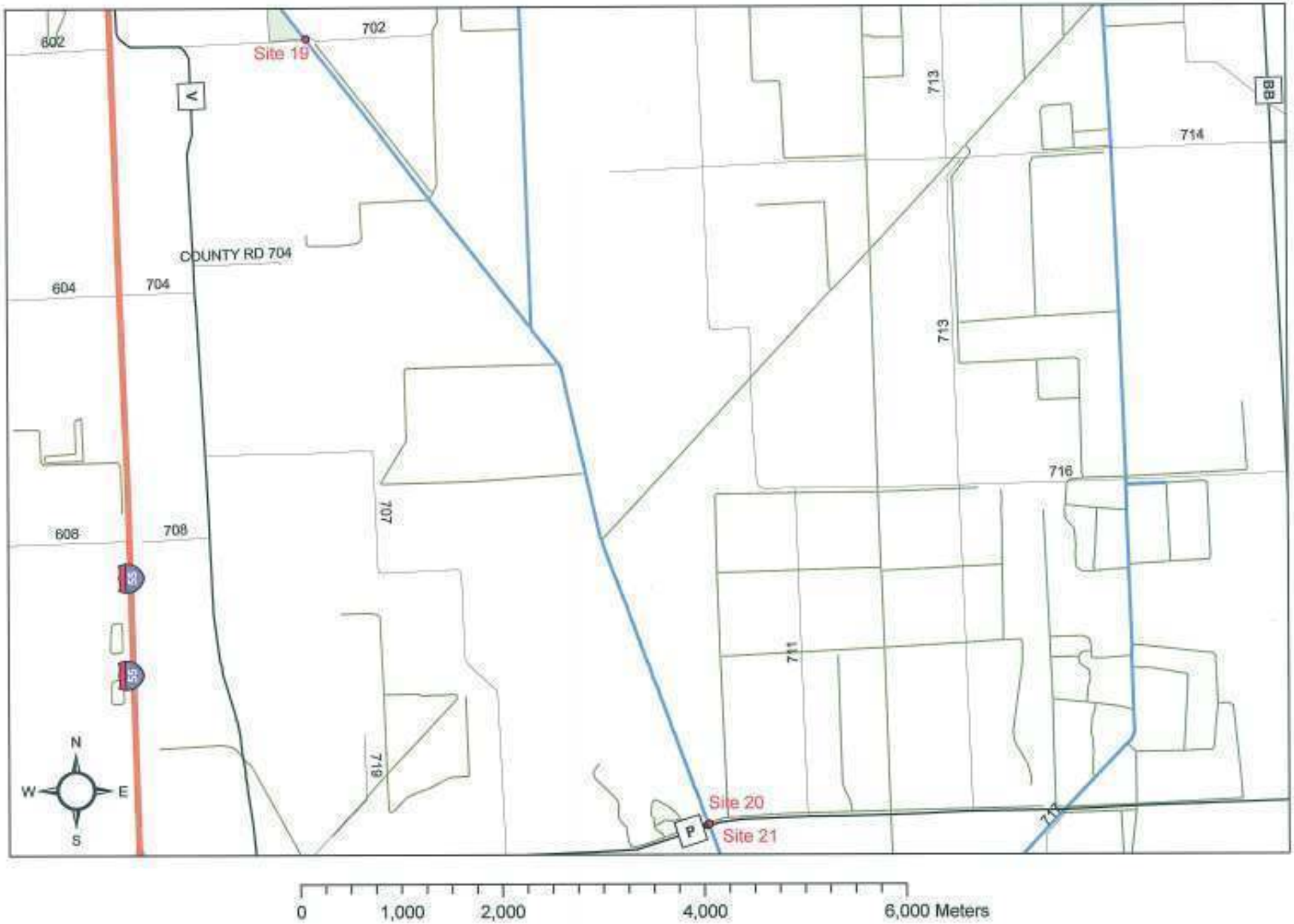
WBID 3138 St. Johns Ditch - New Madrid and Scott Counties

WBID 3138 St. Johns Ditch - New Madrid and Scott Counties

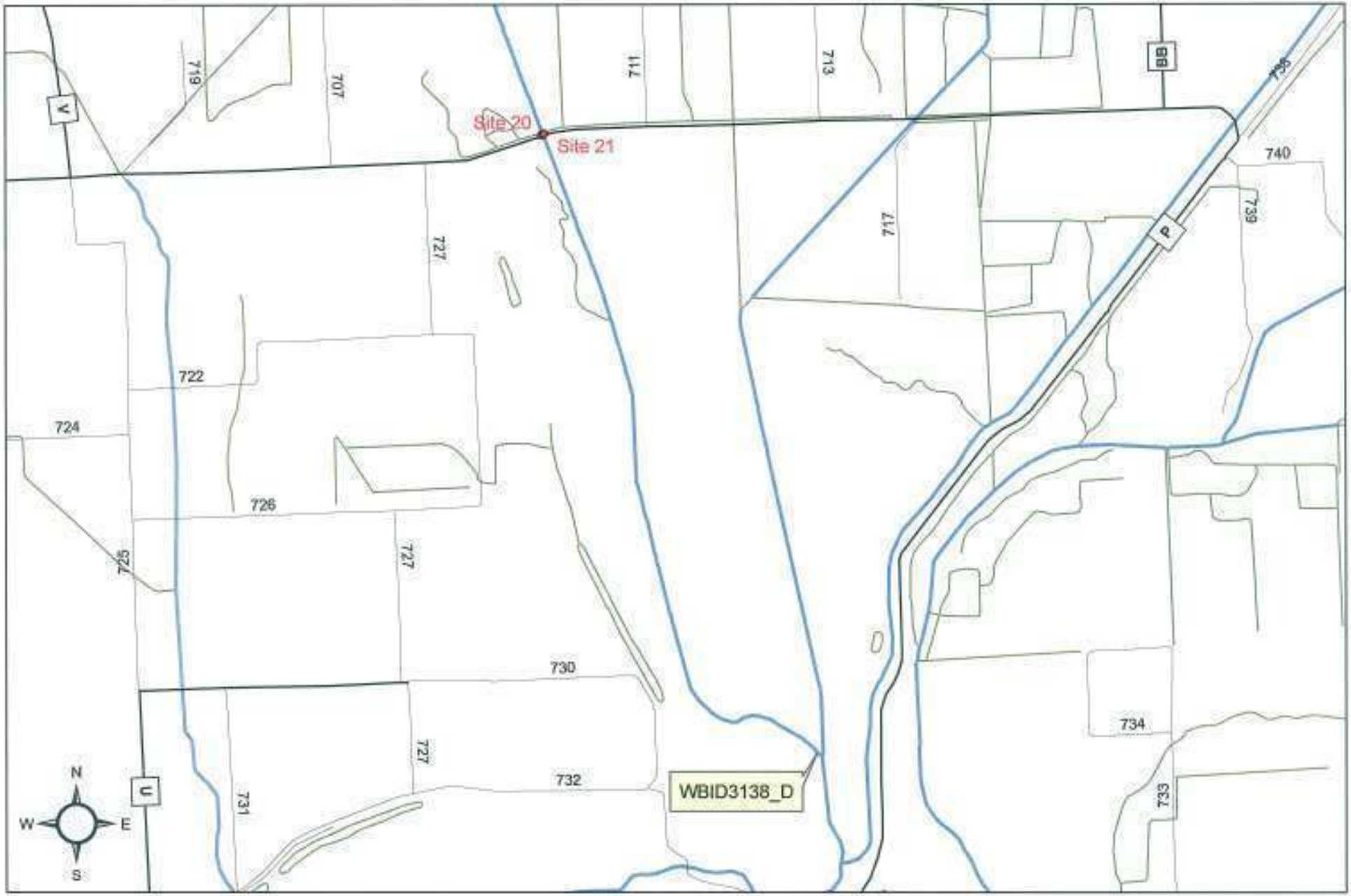


WBID 3138 St. Johns Ditch - New Madrid and Scott Counties

WBID 3138 St. Johns Ditch - New Madrid and Scott Counties



WBID 3138 St. Johns Ditch - New Madrid and Scott Counties



WBID # 3138

Site # 1

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/19/07 @ 16:09	Site Location Description (e.g., road crossing): CR 408
Personnel (Data Collectors): AW + TH	
Current Weather Conditions: 85° sunny	Facility Name: Sikeston WWTF MO 0035009 Morley WWTF MO 0126195
Weather Conditions for Past 10 days:	Permit Number:
Drought Conditions?: No drought □; Phase I □; Phase II ☒; Phase III □; Phase IV □; Unknown □	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)				
Site 01	Easting (UTM X): 16S 0272437	Northing (UTM Y): 4163906	Horizontal Accuracy: (EPE / FOM / PDOP)	Meters 10
Site 11	Easting (UTM X): 16S 0272350	Northing (UTM Y): 4163773	Horizontal Accuracy: (EPE / FOM / PDOP)	Meters 8

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
H-003	downstream T-1	H004	upstream T-11		
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 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.)

WBID # 3138
Site # 01

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ Boating accesses	☐ Fence	☐ No trespass sign	☒ Steep slopes	☒ Other:
Comments: County Rd + farm fields				

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

☒ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Camping Sites	☐ Rope swings
☐ RV / ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☐ Livestock Watering
Comments / Other: no uses observed				

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

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

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

20% duckweed cover
some emergent plants

Water Characteristics*: (Mark all that apply.)

Odor:	☒ Sewage	☐ Musky	☐ Chemical	☐ None	☐ Other:
Color:	☐ Clear	☐ Green	☐ Gray	☐ Milky	☒ Other: black
Bottom Deposit:	☒ Sludge	☐ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☒ None	☐ 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 effect another use.

WBID # 3138

Site # 01

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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.)

None

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

Surveyor's Signature: [signature] Date of Survey: 9/19/07

Organization: ERC Position: Field Manager

WBID # 3138
Site # 302
AU

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/19/07 16:53	Site Location Description (e.g., road crossing): Hwy C upstream
Personnel (Data Collectors): AW KTH	Facility Name: Sikeston WWTF Morley WWTF
Current Weather Conditions: 83° sunny	Permit Number: MO 0035009 MO 0126195
Weather Conditions for Past 10 days:	
Drought Conditions?: No drought □; Phase I □; Phase II X; Phase III □; Phase IV □; Unknown □	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)				
Site 01	Easting (UTM X): 165027127S	Northing (UTM Y): 4102390	Horizontal Accuracy: (EPE) / FOM / PDOP)	Meters 5
Site 11	Easting (UTM X): 165027120	Northing (UTM Y): 4102318	Horizontal Accuracy: (EPE) / FOM / PDOP)	Meters 5

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
#-006	downstream T-11	AW #005	upstream T-11		
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 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.)

WBID # 3138
Site # 02

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ Boating accesses	☐ Fence	☐ No trespass sign	☒ Steep slopes	☒ Other:
Comments: Hwy C & farm fields				

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

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

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

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

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

emergent plants 60% AW cover
some duck weed
filamentous algae present

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☒ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☒ Sludge some	☐ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☒ None	☐ Other:

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WBID # 3138
Site # 02

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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.)

muscle shells in bottom of ditch
dead fish in ditch

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

Surveyor's Signature: [signature] Date of Survey: 9/19/07

Organization: ERC Position: Field Manager

WBID # 3138
Site # 03

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/19/07 17:24	Site Location Description (e.g., road crossing): Hwy C - downstream
Personnel (Data Collectors): AW + TH	
Current Weather Conditions: 80° partly cloudy	Facility Name: Sikeston WWTF Morley WWTF
Weather Conditions for Past 10 days:	Permit Number: MO0035009 MO0126199
Drought Conditions?: No drought □; Phase I □; Phase II ☒; Phase III □; Phase IV □; Unknown □	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)					
Site 01	Easting (UTM X): 16S 0271093	Northing (UTM Y): 4102273	Horizontal Accuracy: (EPE / FOM / PDOP)	Meters	8
Site 11	Easting (UTM X): 16S 0270994	Northing (UTM Y): 4102143	Horizontal Accuracy: (EPE / FOM / PDOP)	Meters	7

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
H-007	downstream T-1	H-008	upstream T-11		
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 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.)

WBID # 3138
Site # 03

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ Boating accesses	☐ Fence	☐ No trespass sign	☒ Steep slopes	☐ Other:
Comments: ~~NONE~~ AW Farm fields & Hwy C				

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

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

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

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

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

10% cover of duckweed - few emergent plants
filamentous algae present

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☑ None	☐ Other:
Color:	☒ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☒ Sludge	☐ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☐ None	☐ Other:

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WBID # 3138

Site # 03

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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.)

The bottom was very soft in places making it hard to walk the ditch. Bottom had a few mussle shells present.

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

Surveyor's Signature: [signature] Date of Survey: 9/19/07

Organization: ERC Position: Field Manager

WBID # 3138

Site # 4

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/21/07	Site Location Description (e.g., road crossing):
Personnel (Data Collectors): AW+TH	CR 427 downstream @ bridge
Current Weather Conditions: 75° sunny	Facility Name: Silvestone WWTF Morley WWTF
Weather Conditions for Past 10 days:	Permit Number: MO 0035009 MO 0126195
Drought Conditions?: No drought □; Phase I □; Phase II X; Phase III □; Phase IV □; Unknown □	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)				
Site 01	Easting (UTM X): 16 502 694 56	Northing (UTM Y): 4106014	Horizontal Accuracy: (EPE / FOM / PDOP)	Meters 5
Site 11	Easting (UTM X): 16 502 69369	Northing (UTM Y): 4099878	Horizontal Accuracy: (EPE / FOM / PDOP)	Meters 7

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
4049	Downstream T-11	4050	upstream T-11		
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 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.)

WBID # 3138
Site # 4

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ Boating accesses	☐ Fence	☐ No trespass sign	☒ Steep slopes	☐ Other:

Comments: farm fields

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

☐ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Camping Sites	☐ Rope swings
☐ RV / ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☐ Livestock Watering

Comments / Other: NONE

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

% Cobble	% Gravel	70 % Sand	15 % Silt	15 % Mud/Clay	% Bedrock

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

20-30% cover of filamentous algae
little duckweed

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☒ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☒ None	☐ Other:

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WBID # 3138
Site # 4

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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.)

- flow present
- irrigation occurring nearby

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

Surveyor's Signature: Alyssa Wellyn Date of Survey: 9/21/07

Organization: ERC Position: Field Manager

WBID # 3138
Site # 5

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/21/07 9:06	Site Location Description (e.g., road crossing): Hwy U @ Bridge downstream
Personnel (Data Collectors): AW & TH	Facility Name: Sikeston MCDTF / Morley WWTF
Current Weather Conditions: 75° sunny	Permit Number: MO 0035009 / MO 0126195
Weather Conditions for Past 10 days:	
Drought Conditions?: No drought □; Phase I □; Phase II X; Phase III □; Phase IV □; Unknown □	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)					
Site 01	Easting (UTM X): 1650269064	Northing (UTM Y): 4098830	Horizontal Accuracy: (EPE / FOM / PDOP)	Meters	6
Site 11	Easting (UTM X): 1650269119	Northing (UTM Y): 4098777	Horizontal Accuracy: (EPE / FOM / PDOP)	Meters	6

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
H-047	Downstream T-1	H-048	Upstream T-11		
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 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.)

WBID # 3138
Site # 5

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ Boating accesses	☐ Fence	☐ No trespass sign	☒ Steep slopes	☐ Other:
Comments: farm fields				

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

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

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

% Cobble	% Gravel	70% Sand	15 % Silt	5 % Mud/Clay	% Bedrock

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

20%-40% cover of stems + mats of filamentous algae a little duckweed is also present

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☒ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☒ None	☐ 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 effect another use.

WBID # 3138
Site # 5

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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.)

- flow present
AW
- Irrigation was occurring on the N side of Hwy 41 - it could have been affecting the depth ??

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

Surveyor's Signature: _____ Date of Survey: 9/24/07

Organization: ERC Position: Field Manager

WBID # 3138

Site # 6

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/7/07 8:40	Site Location Description (e.g., road crossing): CR 490 upstream of site 7
Personnel (Data Collectors): AW+TH	
Current Weather Conditions: 73° sunny	Facility Name: Sikeston WWTF Morley WWTF
Weather Conditions for Past 10 days:	Permit Number: MO 0035009 MO 0126195
Drought Conditions?: No drought □; Phase I □; Phase II X; Phase III □; Phase IV □; Unknown □	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)				
Site 01	Easting (UTM X): 16 502704	Northing (UTM Y): 4092850	Horizontal Accuracy: (EPE) / FOM / PDOP)	Meters 5
Site 11	Easting (UTM X): 16 502705	Northing (UTM Y): 4092662	Horizontal Accuracy: (EPE) / FOM / PDOP)	Meters 5

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
H045	Upstream T-1	H-046	Downstream T-1		
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 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.)

WBID # 3138
Site # 6

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ Boating accesses	☐ Fence	☐ No trespass sign	☒ Steep slopes	☐ Other:

Comments: WRP borders both sides of the ditch

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

☐ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Camping Sites	☐ Rope swings
☐ RV / ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☐ Livestock Watering

Comments / Other: NONE

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

% Cobble	% Gravel	70 % Sand	15 % Silt	5 % Mud/Clay	% Bedrock

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

strips to few mats of filamentous algae - 5% cover

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☒ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☑ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☒ Foam little	☒ None	☐ 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 effect another use.

WBID # 3138
Site # 6

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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.)

- flow present

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

Surveyor's Signature: [signature] Date of Survey: 9/21/07

Organization: ERC Position: Field Manager

WBID # 3138
Site # 7

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/21/07 08:16	Site Location Description (e.g., road crossing): CR 450 upstream @ bridge
Personnel (Data Collectors): TW + TH	
Current Weather Conditions: 70° sunny	Facility Name: Sikeston WWTF Morley WWTF
Weather Conditions for Past 10 days:	Permit Number: MO0035009 MO0126195
Drought Conditions?: No drought □; Phase I □; Phase II ☒; Phase III □; Phase IV □; Unknown □	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)				
Site 01	Easting (UTM X): 16 502720525	Northing (UTM Y): 4092619	Horizontal Accuracy: (EPE)/ FOM / PDOP) 8	Meters
Site 11	Easting (UTM X): 16 502705866	Northing (UTM Y): 4092459	Horizontal Accuracy: (EPE)/ FOM / PDOP) 6	Meters

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
H-043	Upstream T-11	H044	Downstream T-1		
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 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.)

WBID # 3138

Site # 7

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ Boating accesses	☐ Fence	☐ No trespass sign	☒ Steep slopes	☐ Other:

Comments:
farm fields - cattle pasture to south
WRP border both sides

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

☐ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Camping Sites	☐ Rope swings
☐ RV / ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☐ Livestock Watering

Comments / Other:
NONE
Notes livestock watering downstream of bridge fenced off

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

% Cobble	% Gravel	% Sand	% Silt	% Mud/Clay	% Bedrock
		70	15	5	

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

long strings of filamentous algae

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☒ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☒ Foam little	☒ None	☐ 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 effect another use.

WBID # 3138
Site # 7

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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.)

flow present

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

Surveyor's Signature: Abigail L Wilmer Date of Survey: 9/21/07

Organization: ERC Position: Field Manager

WBID # 3138

Site # 8

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/21/07 07:19	Site Location Description (e.g., road crossing): CR 472 downstream
Personnel (Data Collectors): AWFTH	
Current Weather Conditions: 70° sunny	Facility Name: Sikeston WWTF Morley WWTF
Weather Conditions for Past 10 days:	Permit Number: MO 0035009 MO 0126195
Drought Conditions?: No drought □; Phase I □; Phase II X; Phase III □; Phase IV □; Unknown □	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)				
Site 01	Easting (UTM X): 1650272096	Northing (UTM Y): 4090775	Horizontal Accuracy: (EPE) / FOM / PDOP) =	Meters 7
Site 11	Easting (UTM X): 1650272263	Northing (UTM Y): 4090668	Horizontal Accuracy: (EPE) / FOM / PDOP)	Meters 8

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
H-039	Downstream T-1	H-040	foot path by stream near house	H-041	Boat & fishing dock
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
H-042	Upstream T-11				
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose

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.)

WBID # 3138
Site # 8

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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	☒ Rural Residential
☐ Campgrounds	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ Boating accesses	☐ Fence	☐ No trespass sign	☒ Steep slopes	☐ Other:

Comments:
farm fields

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

☐ Roads	☐ Foot paths/prints	☒ Dock/platform	☐ Camping Sites	☐ Rope swings
☐ RV / ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☐ Livestock Watering

Comments / Other:
Boat was present by T-10

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

% Cobble	% Gravel	60 % Sand	20 % Silt	20 % Mud/Clay	% Bedrock

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

None

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☒ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☒ Foam little	☒ None	☐ 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 effect another use.

WBID # 3138

Site # 8

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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.)

- flow present
- evidence of possible fishing - boat, platform + foot path to ditch edge

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

Surveyor's Signature: Wesley Date of Survey: 9/21/07

Organization: ERC Position: Field Manager

WBID # 3138
Site # 9

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/21/07 6:40	Site Location Description (e.g., road crossing): Hwy HH downstream
Personnel (Data Collectors): AW + TH	
Current Weather Conditions: 70° foggy	Facility Name: Sikeston WWTF Morley WWTF
Weather Conditions for Past 10 days:	Permit Number: MO 0035009 MO 0126 195
Drought Conditions?: No drought □; Phase I □; Phase II X; Phase III □; Phase IV □; Unknown □	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)				
Site 01	Easting (UTM X): 16S0272394	Northing (UTM Y): 4089100	Horizontal Accuracy: (EPE) FOM / PDOP)	Meters 5
Site 11	Easting (UTM X): 16S0272912	Northing (UTM Y): 4088909	Horizontal Accuracy: (EPE) FOM / PDOP)	Meters 5

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
H036	ATV Tracks to ditch	H037	Downstream T-1	H-038	Upstream T-1
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 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.)

WBID # 3158
Site # 9

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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	☒ Rural Residential
☐ Campgrounds	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ Boating accesses	☐ Fence	☐ No trespass sign	☒ Steep slopes	☐ Other:

Comments:
farm fields too

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

☐ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Camping Sites	☐ Rope swings
☒ RV / ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☐ Livestock Watering

Comments / Other:
1 set of ATV tracks to ditch

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

% Cobble	% Gravel	% Sand	% Silt	% Mud/Clay	% Bedrock
		60	20	20	

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

None

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☒ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☒ Foam little	☒ None	☐ 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 effect another use.

WBID # 3138
Site # 9

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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.)

- flow present

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

Surveyor's Signature: [signature] Date of Survey: 9/21/07

Organization: ERC Position: Field Manager

WBID # 3138
Site # 10

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/20/07 16:29	Site Location Description (e.g., road crossing): Park access Rd Industrial Dr - to Rotary Park upstream
Personnel (Data Collectors): AW + TH	
Current Weather Conditions: 85° sunny	Facility Name: Sikeston WWTF Morley WWTF
Weather Conditions for Past 10 days:	Permit Number: MO 0035009 MO 0126195
Drought Conditions?: No drought □; Phase I □; Phase II X; Phase III □; Phase IV □; Unknown □	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)				
Site 01	Easting (UTM X): 1650272227	Northing (UTM Y): 4086419	Horizontal Accuracy: (EPE) / FOM / PDOP)	Meters 5
Site 11	Easting (UTM X): 1650272244	Northing (UTM Y): 4086199	Horizontal Accuracy: (EPE) / FOM / PDOP)	Meters 6

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
H-033	downstream T-1	H-035	upstream T-11	H-034	foot path to stream between T-1 & T-2
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 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.)

WBID # 3138
Site # 10

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ Boating accesses	☐ Fence	☐ No trespass sign	☒ Steep slopes	☐ Other:
Comments: farm fields				

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

☐ Roads	☒ Foot paths/prints	☐ Dock/platform	☐ Camping Sites	☐ Rope swings
☐ RV / ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☐ Livestock Watering
Comments / Other: foot path or two to the ditch				

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

% Cobble	% Gravel	% Sand	% Silt	% Mud/Clay	% Bedrock
		70	20	10	

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

none - a few floating mats of small algae less than 3 inch wide

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☒ Clear	☒ Green	☐ Gray	☒ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☒ Foam some	☐ None	☐ 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 effect another use.

WBID # 3138

Site # 10

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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.)

- flow present
- park is on one side of ditch only a few foot paths to the ditch but still have a steep ledge

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

Surveyor's Signature: [signature] Date of Survey: 9/20/07

Organization: ERC Position: Field Manager

WBID # 3138
Site # 11

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/20/07 15:51	Site Location Description (e.g., road crossing): Park AW Industrial Dr @ foot path downstream to Rotary Park
Personnel (Data Collectors): AW + TH	
Current Weather Conditions: 85° sunny	Facility Name: Sikeston WWTF Morley WWTF
Weather Conditions for Past 10 days:	Permit Number: MO0035009 MO0126195
Drought Conditions?: No drought □; Phase I □; Phase II ☒; Phase III □; Phase IV □; Unknown □	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)					
Site 01	Easting (UTM X): 1650272247	Northing (UTM Y): 4086187	Horizontal Accuracy: (EPE) / FOM / PDOP)	Meters	5
Site 11	Easting (UTM X): 1650272219	Northing (UTM Y): 4085976	Horizontal Accuracy: (EPE) / FOM / PDOP)	Meters	5

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
H-030	downstream T-1	H-031	upstream T-11	H-032	path to ditch @ T-1 by park
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 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.)

WBID # 3138
Site # 11

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ Boating accesses	☐ Fence	☐ No trespass sign	☒ Steep slopes	☐ Other:

Comments:
farm fields, steep slopes and a city park (golf course too) surround the ditch ~~the ditch~~

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

☐ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Camping Sites	☐ Rope swings
☐ RV / ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☐ Livestock Watering

Comments / Other:
NONE - foot path to ditch but it has a steep bank

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

% Cobble	% Gravel	70 % Sand	20 % Silt	10 % Mud/Clay	% Bedrock

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

none

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☐ None	☐ Other:
Color:	☐ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☐ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☐ None	☐ Other:

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WBID # 3138

Site # 11

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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.)

- the park & golf course border one side of the ditch but it doesn't appear that there are any uses just people looking or throwing trash
- flow present

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

Surveyor's Signature: [signature] Date of Survey: 9/20/07

Organization: LRC Position: Field Manager

WBID # 3138

Site # 12

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/20/07	Site Location Description (e.g., road crossing): upstream Donast ABLES RD - ~~downstream~~ @ bridge
Personnel (Data Collectors): AW + TH	
Current Weather Conditions: 87° sunny	Facility Name: Sikeston WWTF Morley WWTF
Weather Conditions for Past 10 days:	Permit Number: MO0035009 MO0126195
Drought Conditions?: No drought ☐; Phase I ☐; Phase II ☒; Phase III ☐; Phase IV ☐; Unknown ☐	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)				
Site 01	Easting (UTM X): 1650271653	Northing (UTM Y): 4084448	Horizontal Accuracy: (EPE / FOM / PDOP)	Meters 9
Site 11	Easting (UTM X): 1650271532	Northing (UTM Y): 4084273	Horizontal Accuracy: (EPE / FOM / PDOP)	Meters 7

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
H-025	access to stream at intersection of two town Rds	H-026	access to stream near rd + bridge	H-027	upstream T-11
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
H-029	downstream T-1	H-028	boat on stream bank spot to put boat in		
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose

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.)

WBID # 3138
Site # 12

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ Boating accesses	☐ Fence	☐ No trespass sign	☒ Steep slopes	☐ Other:

Comments:
a school is on one side and residences on the other one bank is mowed while the other isn't

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

☐ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Camping Sites	☐ Rope swings
☐ RV / ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☐ Livestock Watering

Comments / Other:
(dam)
a boat is in the weeds (path mowed) where someone has accessed the stream see pic H-028

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

% Cobble	% Gravel	20 % Sand	70 % Silt	10 % Mud/Clay	% Bedrock

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

10% cover of algae growth on debris (trash, rocks, sticks) in stream

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☐ Clear	☒ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☒ None	☐ Other:

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WBID # 3138
Site # 12

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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.)

- Evidence of boat use
- Evidence of a bank line where people had been stuck in the mud with strip and not going into water

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

Surveyor's Signature: Allyson Mulmyer Date of Survey: 9/20/07

Organization: ERC Position: Field Manager

WBID # 3138
Site # 13

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/20/07 13:53	Site Location Description (e.g., road crossing): CR 806 upstream @ bridge
Personnel (Data Collectors): AW + TH	
Current Weather Conditions: 89° sunny	Facility Name: Skeston WWTF Morley WWTF
Weather Conditions for Past 10 days:	Permit Number: MO0035009 MO0126195
Drought Conditions?: No drought □; Phase I □; Phase II ☒; Phase III □; Phase IV □; Unknown □	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)				
Site 01	Easting (UTM X): 1650272409	Northing (UTM Y): 4079606	Horizontal Accuracy: (EPE / FOM / PDOP)	Meters 5
Site 11	Easting (UTM X): 1650272396	Northing (UTM Y): ~~4079606~~ 4079322 AW	Horizontal Accuracy: (EPE / FOM / PDOP)	Meters 5

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
A-023	Upstream T-11	A-024	Downstream T-1		
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 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.)

WBID # 3138
Site # 13

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ Boating accesses	☐ Fence	☐ No trespass sign	☒ Steep slopes	☐ Other:
Comments: farm fields – west bank recently cleared				

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

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

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

% Cobble	% Gravel	% Sand	% Silt	% Mud/Clay	% Bedrock
		90	5	5	

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

NONE

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☒ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☒ None	☐ 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 effect another use.

WBID # _____

Site # _____

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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.)

- flow present

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

Surveyor's Signature: _____ Date of Survey: 9/20/07

Organization: ERC Position: Field Manager

WBID # 3138

Site # 14

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/20/07	Site Location Description (e.g., road crossing): CR 806 downstream @ bridge
Personnel (Data Collectors): AW+TH	
Current Weather Conditions: 83° Sunny	Facility Name: Sikeston WWTF Morley WWTF
Weather Conditions for Past 10 days:	Permit Number: MO0035009 MO0126195
Drought Conditions?: No drought □; Phase I □; Phase II ☒; Phase III □; Phase IV □; Unknown □	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)				
Site 01	Easting (UTM X): 1650272392	Northing (UTM Y): 4079308	Horizontal Accuracy: (EPE) / FOM / PDOP)	Meters 6
Site 11	Easting (UTM X): 1650272373	Northing (UTM Y): 4079031	Horizontal Accuracy: (EPE) / FOM / PDOP)	Meters 5

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
H-020	Downstream T-1	H-021	Upstream T-11	H022	water influencing site 14 slightly upstream of T-1
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 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.)

WBID # 3138

Site # 14

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ Boating accesses	☐ Fence	☐ No trespass sign	☒ Steep slopes	☐ Other:
Comments: farm fields				

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

☐ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Camping Sites	☐ Rope swings
☐ RV / ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☐ Livestock Watering
Comments / Other: NONE - drainage pipe by T-18 upstream				

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

% Cobble	% Gravel	90 % Sand	5 % Silt	5 % Mud/Clay	% Bedrock

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

none

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☒ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☒ None	☐ 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 effect another use.

WBID # 3138
Site # 14

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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.)

- flow present
- drainage pipe upstream influencing water level
- trash in stream - tires - car parts etc.

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

Surveyor's Signature: [signature] Date of Survey: 9/20/07

Organization: CRC Position: Field Manager

WBID # 3138
Site # 19

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/20/07	Site Location Description (e.g., road crossing): CR 808 downstream (@field road) bridge
Personnel (Data Collectors): AW + TH	
Current Weather Conditions: 78° sunny + clear	Facility Name: Sikeston WWTF Morley WWTF
Weather Conditions for Past 10 days:	Permit Number: MO0035909 MO0126195
Drought Conditions?: No drought □; Phase I □; Phase II X; Phase III □; Phase IV □; Unknown □	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)				
Site 01	Easting (UTM X): 16S0272461	Northing (UTM Y): 4077711	Horizontal Accuracy: (EPE) / FOM / PDOP)	Meters 6
Site 11	Easting (UTM X): 16S0272466	Northing (UTM Y): 4077431	Horizontal Accuracy: (EPE) / FOM / PDOP)	Meters 6

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
11-018	Downstream T-1	H-019	Upstream T-11		
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 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.)

WBID # 3138
Site # 15

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ Boating accesses	☐ Fence	☐ No trespass sign	☒ Steep slopes	☐ Other:
Comments: farmfields				

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

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

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

% Cobble	% Gravel	80 % Sand	15 % Silt	5 % Mud/Clay	% Bedrock

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

some (less than 3%) algae mats clinging to debris in ditch

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☒ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☒ None	☐ 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 effect another use.

WBID # 3138
Site # 15

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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.)

flow present
fish present

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

Surveyor's Signature: [signature] Date of Survey: 9/20/07

Organization: LRC Position: Field Manager

WBID # 3138
Site # 16

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/20/07	Site Location Description (e.g., road crossing): CR 820 downstream @ bridge
Personnel (Data Collectors): AW + TH	
Current Weather Conditions: 77° sunny + clear	Facility Name: Sikeston WWTF Mosley WWTF
Weather Conditions for Past 10 days:	Permit Number: MO0035009 MO0126199
Drought Conditions?: No drought □; Phase I □; Phase II ☒; Phase III □; Phase IV □; Unknown □	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)				
Site 01	Easting (UTM X): 1650273298	Northing (UTM Y): 4074419	Horizontal Accuracy: (EPE / FOM / PDOP)	Meters 8
Site 11	Easting (UTM X): 1650273395	Northing (UTM Y): 4074112	Horizontal Accuracy: (EPE / FOM / PDOP)	Meters 8

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
H016	Downstream T-1	H-017	Upstream T-11		
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 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.)

WBID # 3138
Site # 14

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ Boating accesses	☐ Fence	☐ No trespass sign	☒ Steep slopes	☐ Other:
Comments: Farm fields				

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

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

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

% Cobble	% Gravel	80 % Sand	15 % Silt	5 % Mud/Clay	% Bedrock

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

some growth on sand - hard to determine

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☒ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☒ Foam some	☒ None	☒ 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 effect another use.

WBID # 3138
Site # 16

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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.)

flow present
large fish present

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

Surveyor's Signature: [signature] Date of Survey: 9/20/07

Organization: ERC Position: Field Manager

WBID # 3138
Site # 17

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/20/07	Site Location Description (e.g., road crossing): Hwy 80 upstream @ bridge
Personnel (Data Collectors): AWATH	
Current Weather Conditions: 75° Sunny/clear	Facility Name: Silkeston WWTF Morley WWTF
Weather Conditions for Past 10 days:	Permit Number: MO0035009 MO0126195
Drought Conditions?: No drought □; Phase I □; Phase II □; Phase III ☒; Phase IV □; Unknown □	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)				
Site 01	Easting (UTM X): 1650274076	Northing (UTM Y): 4071493	Horizontal Accuracy: (EPE) / FOM / PDOP)	Meters 8
Site 11	Easting (UTM X): 1650274232	Northing (UTM Y): 4071177	Horizontal Accuracy: (EPE) / FOM / PDOP)	Meters 6

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
4-014	upstream T-11	H015	Downstream T-1		
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 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.)

WBID # 3138
Site # 17

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ Boating accesses	☐ Fence	☐ No trespass sign	☒ Steep slopes	☐ Other:
Comments: farm fields				

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

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

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

% Cobble	% Gravel	80 % Sand	15 % Silt	5 % Mud/Clay	% Bedrock

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

NONE

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☒ Clear	☐ Green	☐ Gray	☐ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☒ Foam some	☒ None	☐ 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 effect another use.

WBID # 3138

Site # 17

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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.)

flow present
Large fish present

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

Surveyor's Signature: [signature] Date of Survey: 9/20/07

Organization: ERC Position: Field Manager

WBID # 3138

Site # 18

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 7/20/07 08:20	Site Location Description (e.g., road crossing): Hwy 80 @ bridge downstream
Personnel (Data Collectors): AWT T1+	Facility Name: Sikeston WWTF Morley WWTF
Current Weather Conditions: 73° sunny	Permit Number: MO0035009 MO0126195
Weather Conditions for Past 10 days:	
Drought Conditions?: No drought □; Phase I □; Phase II □; Phase III X; Phase IV □; Unknown □	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)				
Site 01	Easting (UTM X): 16S0274230	Northing (UTM Y): 4071149	Horizontal Accuracy: (EPE / FOM / PDOP) 5	Meters
Site 11	Easting (UTM X): 16S0274407	Northing (UTM Y): 4070890	Horizontal Accuracy: (EPE / FOM / PDOP) 5	Meters

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
H-012	Downstream T-1	H-013	Upstream T-11		
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 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.)

WBID # 3138

Site # 18

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ Boating accesses	☐ Fence	☐ No trespass sign	☒ Steep slopes	☐ Other:
Comments: farm fields + Hwy 80				

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

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

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

% Cobble	% Gravel	90 % Sand	15 % Silt	5 % Mud/Clay	% Bedrock

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

NONE

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☒ Clear	☐ Green	☐ Gray	☒ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☒ Foam little	☒ None	☐ 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 effect another use.

WBID # 3138
Site # 18

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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.)

flow present
large fish present

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

Surveyor's Signature: [signature] Date of Survey: 9/20/07

Organization: ERC Position: Field Manager

WBID # 3138
Site # 19

#19

Field Data Sheets for Recreational Use Stream Surveys

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

Date & Time: 9-20-07	Site Location Description (e.g., road crossing): CR 702 (near conservation area)
Personnel (Data Collectors): AWATH	
Current Weather Conditions: 72° sunny	Facility Name: Sikeston WWTF Morley WWTF
Weather Conditions for Past 10 days:	Permit Number: MO 0083909 MO 0126199
Drought Conditions?: No drought □; Phase I □; Phase II □; Phase III X; Phase IV □; Unknown □	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)				
Site 01	Easting (UTM X): 16 S 0279353	Northing (UTM Y): 4069510	Horizontal Accuracy: (EPE / FOM / PDOP)	Meters
Site 11	Easting (UTM X):	Northing (UTM Y):	Horizontal Accuracy: (EPE / FOM / PDOP)	Meters

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
H-011	downstream T-1				
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 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.)

WBID # 3138
Site # 19

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ Boating accesses	☐ Fence	☐ No trespass sign	☐ Steep slopes	☐ Other:
Comments: Farm Fields				

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

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

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

% Cobble	% Gravel	% Sand	60 % Silt	40 % Mud/Clay	% Bedrock

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

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☐ Clear	☐ Green	☐ Gray	☒ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☒ None	☐ 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 effect another use.

WBID # 3138
Site # 19

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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.)

ditch assessed from bridge field crew attempted to cross but the sediment in bottom of the ditch was too deep - average depth with pole and line method by bridge was .7-1m deep

flow present

- farm fields nearby (soybeans) are being flood irrigated no actual evidence of runoff but it is likely influencing level

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

Surveyor's Signature: [signature] Date of Survey: 9/20/07

Organization: ERC Position: Field Manager

WBID # 3138
Site # 20

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/20/07 7:22	Site Location Description (e.g., road crossing): Hwy P upstream @ bridge
Personnel (Data Collectors): AW + TH	
Current Weather Conditions: 70° foggy	Facility Name: Sikeston WWTF Morley WWTF
Weather Conditions for Past 10 days:	Permit Number: MO0039009 MO0126195
Drought Conditions?: No drought □; Phase I □; Phase II □; Phase III ☒; Phase IV □; Unknown □	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)				
Site 01	Easting (UTM X):	Northing (UTM Y):	Horizontal Accuracy: (EPE / FOM / PDOP)	Meters
Site 11	Easting (UTM X): 16 S 0278816	Northing (UTM Y): 4061921	Horizontal Accuracy: (EPE / FOM / PDOP)	Meters 6

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
H-010	upstream T-11				
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 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.)

WBID # 3138
Site # 20

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ Boating accesses	☐ Fence	☐ No trespass sign	☒ Steep slopes	☐ Other:
Comments: farm fields				

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

☐ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Camping Sites	☐ Rope swings
☐ RV / ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☐ Livestock Watering
Comments / Other: None – trash - beer bottles etc by stream				

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

% Cobble	% Gravel	% Sand	60 % Silt	40 % Mud/Clay	% Bedrock

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

None -

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☐ Clear	☐ Green	☐ Gray	☒ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☒ Fine sediments	☐ None	☐ Other:
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☐ None	☐ 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 effect another use.

WBID # 3138
Site # 20

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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.)

assessed stream from bridge using pole + line method - ditch was too deep to cross

flow present

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

Surveyor's Signature: [signature] Date of Survey: 9/20/07

Organization: ERC Position: Field Manager

WBID # 3138

Site # 21

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/20/07 7:20	Site Location Description (e.g., road crossing): Hwy P downstream @ bridge
Personnel (Data Collectors): AWTTH	
Current Weather Conditions: 70° foggy	Facility Name: Sikeston WWTF Morley WWTF
Weather Conditions for Past 10 days:	Permit Number: MO0035009 MO0126195
Drought Conditions?: No drought □; Phase I □; Phase II □; Phase III X; Phase IV □; Unknown □	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)				
Site 01	Easting (UTM X): 1650278 795	Northing (UTM Y): 4061511	Horizontal Accuracy: (EPE / FOM / PDOP)	Meters 9
Site 11	Easting (UTM X):	Northing (UTM Y):	Horizontal Accuracy: (EPE / FOM / PDOP)	Meters

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
H-009	Downstream T-1				
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 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.)

WBID # 3138
Site # 21

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National forests	☐ Nature trails	☐ Stairs/walkway
☐ Boating accesses	☐ Fence	☐ No trespass sign	☒ Steep slopes	☐ Other:

Comments:
farm fields

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

☐ Roads	☐ Foot paths/prints	☐ Dock/platform	☐ Camping Sites	☐ Rope swings
☐ RV / ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☐ Livestock Watering

Comments / Other: - beer bottles other trash

NONE

Substrate*: (These values should add up to 100%.) - guess did assessment from bridge

% Cobble	% Gravel	% Sand	50 % Silt	50 % Mud/Clay	% Bedrock

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

did assessment from bridge –

Water Characteristics*: (Mark all that apply.)

Odor:	☐ Sewage	☐ Musky	☐ Chemical	☒ None	☐ Other:
Color:	☐ Clear	☐ Green	☐ Gray	☒ Milky	☐ Other:
Bottom Deposit:	☐ Sludge	☐ Solids	☒ Fine sediments	☐ None	☐ Other: assumption
Surface Deposit:	☐ Oil	☐ Scum	☐ Foam	☒ None	☐ 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 effect another use.

WBID # 3138
Site # 21

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (continued)

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.)

used pole + line method to assess stream @ bridge - ditch was too deep to cross

flow present

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

Surveyor's Signature: [signature] Date of Survey: 9/20/07

Organization: ERC Position: Field Manager

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3138 Site #: 1

Estimated Channel Incision: .10 (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: 165 0272437 UTM Y: 4103906 +/- 10 (meters) wypt 03

11 UTM X: ~~165 0272352~~ AW 165 0272350 UTM Y: ~~4103766~~ AW 4103773 +/- ~~5~~ AW 8 (meters) 08

Average Stream Width: 7 (meters) (To determne Length of Reach)

Length of Survey Segment: 150 (meters) (20x average stream width)

Field Staff: AW + TH

Dissolved Oxygen

Date: 9-19-07 Time: 16:09

Dissolved Oxygen: 2.59 (mg/L)

Dissolved Oxygen: 31 (% sat)

Specific Cond: 277 (µS/cm)

Water Temperature: AW ~~23~~ 23.93 (°C)

Transect Cross-Section

Station	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)
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	.36	.06	.63	.08	.68	.07	.66	.14	.66	.09	.70	.19	.67	.19	.83	.13	.61	.12	.67	.14	.75	.11
2	.72	.14	1.26	.14	1.36	.13	1.32	.19	1.32	.16	1.4	.20	1.34	.21	1.66	.26	1.22	.31	1.34	.18	1.5	.16
3	1.08	.13	1.89	.32	2.04	.17	1.98	.23	1.98	.23	2.1	.28	2.01	.30	2.49	.30	1.83	.28	2.01	.26	2.25	.17
4	1.44	.15	2.52	.22	2.72	.20	2.64	.25	2.64	.26	2.8	.30	2.68	.30	3.32	.30	2.44	.34	2.68	.22	3	.21
5	1.8	.10	3.15	.15	3.4	.19	3.3	.23	3.3	.25	3.5	.29	3.35	.47	4.15	.30	3.05	.26	3.35	.30	3.75	.27
6	2.16	.07	3.78	.24	4.08	.20	3.96	.25	3.96	.25	4.2	.30	4.02	.29	4.98	.24	3.66	.26	4.02	.30	4.5	.27
7	2.52	.05	4.41	.15	4.76	.20	4.62	.27	4.62	.24	4.9	.21	4.69	.37	5.81	.20	4.27	.11	4.69	.20	5.25	.19
8	2.88	.03	5.04	.05	5.44	.17	5.28	.22	5.28	.13	5.6	.19	5.36	.30	6.64	.13	4.88	.10	5.36	.16	6	.14
9	3.24	.01	5.67	.01	6.12	.09	5.94	.22	5.94	.08	6.3	.10	6.03	.11	7.47	.10	5.49	.08	6.03	.11	6.75	.08
Right Bank	3.6	0	6.3	0	6.8	0	6.6	0	6.6	0	7.0	0	6.7	0	8.3	0	6.1	0	6.7	0	7.5	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 (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 bv dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: [signature] Date: 9/19/07

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3138 Site #: 02

Estimated Channel Incision: 10 (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: 165 0271275 UTM Y: 4102390 +/- 5 (meters) w4pt

11 UTM X: 165 0271120 UTM Y: 4102318 +/- 5 (meters) 4

Average Stream Width: 7 (meters) (To determne Length of Reach)

Length of Survey Segment: 150 (meters) (20x average stream width)

Field Staff: AW & TH

Dissolved Oxygen

Date: 9-19-07 Time: 16:53

Dissolved Oxygen: 8.76 (mg/L)

Dissolved Oxygen: 108.2 (% sat)

Specific Cond: 292 (µS/cm)

Water Temperature: 26.13 (°C)

Transect Cross-Section

Station	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)
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	.72	.08	.67	.05	.73	.02	.59	.05	.64	.12	.74	.07	.30	.01	.54	.01	.32	.03	.62	.10	.68	.14
2	1.44	.04	1.34	.06	1.46	.01	1.18	.08	1.28	.27	1.48	.12	.60	.04	1.08	.03	.64	.07	1.24	.17	1.36	.17
3	2.16	.06	2.01	.07	2.19	.04	1.77	.12	1.92	.34	2.22	.15	.90	.03	1.62	.01	.96	.13	1.86	.15	2.04	.19
4	2.88	.08	2.68	.08	2.92	.02	2.36	.13	2.56	.36	2.96	.05	1.2	.07	2.16	.04	1.28	.11	2.48	.17	2.72	.22
5	3.60	.08	3.35	.10	3.65	.03	2.95	.12	3.2	.38	3.7	.07	1.5	.08	2.7	.07	1.6	.13	3.1	.30	3.4	.25
6	4.32	.11	4.02	.12	4.38	.07	3.54	.12	3.84	.38	4.44	.06	1.8	.12	3.24	.08	1.92	.11	3.72	.21	4.08	.24
7	5.04	.14	4.69	.13	5.11	.07	4.13	.12	4.48	.32	5.18	.05	2.1	.18	3.78	.03	2.24	.10	4.34	.20	4.76	.21
8	5.76	.06	5.36	.12	5.84	.05	4.72	.14	5.12	.31	5.92	.02	2.4	.11	4.32	.12	2.56	.06	4.91	.11	5.44	.17
9	6.48	.03	6.03	.07	6.57	.04	5.31	.05	5.76	.25	6.66	.03	2.7	.09	4.86	.07	2.88	.04	5.58	.05	6.12	.09
Right Bank	7.2	0	6.7	0	7.3	0	5.9	0	6.4	0	7.4	0	3.0	0	5.4	0	3.2	0	6.2	0	6.8	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 (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 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: [signature] Date: 9/19/07

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3138 Site #: 03

Estimated Channel Incision: .15 (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: 16 S 0271093	UTM Y: 4102273	+/- 8	(meters)	wyat 6
11	UTM X: 16 S 0270994	UTM Y: 4102143	+/- 7	(meters)	7

Average Stream Width: 7 (meters)
(To determne Length of Reach)

Length of Survey Segment: 150 (meters)
(20x average stream width)

Field Staff: AW + TH

Dissolved Oxygen

Date: 9-19-07 Time: 17:24

Dissolved Oxygen: 12.3 (mg/L)

Dissolved Oxygen: 148.18 (% sat)

Specific Cond: AW ~~[illegible]~~ 266 AW (µS/cm)

Water Temperature: 25.16 (°C)

Transect Cross-Section

Station	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)
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	.43	.03	.68	.02	.32	.09	.73	.06	.81	.07	.65	.17	.67	.19	.70	.18	.63	.17	.66	.17	.73	.07
2	.86	.05	1.36	.01	.64	.19	1.46	.13	1.62	.05	1.3	.21	1.34	.22	1.40	.28	1.26	.27	1.32	.24	1.46	.17
3	1.29	.07	2.04	0	.96	.27	2.19	.12	2.43	.05	1.95	.23	2.01	.17	2.10	.27	1.89	.32	1.98	.23	2.19	.17
4	1.72	.05	2.72	.05	1.28	.32	2.92	.09	3.24	.14	2.6	.21	2.68	.17	2.80	.34	2.52	.32	2.64	.27	2.92	.18
5	2.15	.06	3.4	.10	1.6	.30	3.65	.07	4.05	.22	3.25	.20	3.35	.14	3.50	.32	3.15	.32	3.3	.30	3.65	.17
6	2.58	.05	4.08	.11	1.92	.36	4.38	.07	4.86	.27	3.9	.20	4.02	.13	4.20	.30	3.78	.33	3.96	.30	4.38	.17
7	3.01	.07	4.76	.05	2.24	.28	5.11	.08	5.67	.24	4.55	.19	4.69	.15	4.90	.28	4.41	.38	4.62	.30	5.11	.17
8	3.44	.03	5.44	.13	2.56	.22	5.84	.10	6.48	.24	5.2	.14	5.36	.23	5.60	.29	5.04	.29	5.28	.27	5.84	.17
9	3.87	.01	6.12	.12	2.88	.18	6.57	.10	7.29	.20	5.85	.13	6.03	.19	6.30	.22	5.67	.17	5.94	.20	6.57	.11
Right Bank	4.3	0	6.8	0	3.2	0	7.3	0	8.1	0	6.5	0	6.7	0	7.0	0	6.3	0	6.6	0	7.3	0
Feature Type (riffle, run, or pool)	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 bv dividing wetted width by ten)
Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)
All measurements to be taken to the nearest 0.01 meter.

Signed: [signature] Date: 9/19/07

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3138 Site #: 4

Estimated Channel Incision: .20 (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: 1650276456	UTM Y: 4100014	+/- 9	(meters)	410
11	UTM X: 1650269369	UTM Y: 4099872	+/- 7	(meters)	41

Average Stream Width: 7 (meters) (To determne Length of Reach)

Length of Survey Segment: 150 (meters) (20x average stream width)

Field Staff: AW & TH

Dissolved Oxygen

Date: 9/21/07 Time: 9:45

Dissolved Oxygen: 4.89 (mg/L)

Dissolved Oxygen: 56.3 (% sat)

Specific Cond: 265 (µS/cm)

Water Temperature: 22.22 (°C)

Transect Cross-Section

Station	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)
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	.57	.09	.54	.09	60	.12	.70	.11	.73	.18	.69	.08	.72	.10	.5	.07	.66	.06	.71	.09	.75	.12
2	1.14	.19	1.08	.12	1.20	09	1.40	.24	1.46	.30	1.38	.20	1.44	.15	1.0	.09	1.32	.07	1.42	.13	1.5	.07
3	1.71	.15	1.62	.15	1.80	.12	2.10	.21	2.19	.40	2.07	.23	2.16	.04	1.5	.13	1.98	.15	2.13	.17	2.25	.10
4	2.28	.16	2.16	.16	2.40	.10	2.80	.20	2.92	.24	2.76	.22	2.88	.02	2.0	.17	2.64	.20	2.84	.15	3	.17
5	2.85	.14	2.70	.16	3.00	.10	3.50	.14	3.65	.25	3.45	.15	3.6	.09	2.5	.17	3.3	.23	3.55	.14	3.75	.11
6	3.42	.10	3.24	.15	3.60	.12	4.20	.14	4.38	.25	4.14	.18	4.32	.13	3.0	.20	3.96	.22	4.26	.16	4.5	.14
7	3.99	.10	3.78	.09	4.20	.17	4.90	.21	5.11	.20	4.83	.12	5.04	.17	3.5	.20	4.62	.20	4.97	.19	5.25	.17
8	4.56	.12	4.32	.06	4.80	.21	5.40	.18	5.84	.21	5.52	.15	5.76	.17	4.0	.12	5.28	.12	5.68	.20	6	.23
9	5.13	.07	4.86	.11	5.40	.12	6.30	.14	6.57	.12	6.21	.08	6.48	.08	4.5	.04	5.94	.06	6.39	.04	6.75	.09
Right Bank	5.7	0	5.4	0	6.0	0	7.0	0	7.3	0	6.9	0	7.2	0	5.0	0	6.6	0	7.1	0	7.5	0
Feature Type (riffle, run, or pool)	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 bv dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: [signature] Date: 9/21/07

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3138 Site #: 5

Estimated Channel Incision: .20 (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: 16502690104 UTM Y: 4098930 +/- 6 (meters) 38

11 UTM X: 16502690119 UTM Y: 4098877 +/- 6 (meters) 39

Average Stream Width: 8 (meters) (To determne Length of Reach)

Length of Survey Segment: 160 (meters) (20x average stream width)

Field Staff: AW + TH

Dissolved Oxygen

Date: 9/21/07 Time: 9:06

Dissolved Oxygen: 5.22 (mg/L)

Dissolved Oxygen: 56.8 (% sat)

Specific Cond: 2.73 (µS/cm)

Water Temperature: 19.45 (°C)

Transect Cross-Section

Station	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)
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	.71	.12	.73	.13	.91	.04	.70	.09	.74	.15	.84	.09	.82	.08	.78	.04	.79	.06	.84	.08	.82	.06
2	1.42	.20	1.46	.14	1.62	.14	1.4	.16	1.48	.20	1.68	.19	1.64	.02	1.56	.09	1.58	.09	1.68	.20	1.64	.10
3	2.13	.18	2.19	.11	2.43	.14	2.1	.26	2.22	.19	2.92	.14	2.46	.07	2.34	.09	2.37	.12	2.52	.18	2.46	.21
4	2.84	.13	2.92	.17	3.24	.15	2.8	.28	2.96	.19	3.36	.15	3.28	.14	3.12	.08	3.16	.15	3.36	.19	3.28	.11
5	3.55	.10	3.65	.22	4.05	.16	3.9	.30	3.7	.24	4.2	.15	4.1	.14	3.9	.10	3.95	.17	4.2	.13	4.1	.17
6	4.24	.15	4.38	.38	4.86	.17	4.2	.32	4.44	.23	5.04	.18	4.92	.01	4.68	.06	4.74	.18	5.04	.09	21.92	.16
7	4.98	.25	5.11	.45	5.67	.21	4.9	.30	5.18	.13	5.88	.20	5.74	.00	5.46	.08	5.53	.15	5.88	.06	5.74	.19
8	5.68	.19	5.84	.41	6.48	.08	5.6	.18	5.92	.10	6.72	.17	6.56	.00	6.24	.14	6.32	.17	6.72	.07	6.56	.21
9	6.39	.15	6.57	.20	7.29	.03	6.3	.10	6.66	.04	7.56	.06	7.38	.08	7.02	.09	7.11	.13	7.56	.08	7.38	.09
Right Bank	7.1	0	7.3	0	8.1	0	7.0	0	7.4	0	8.4	0	8.2	0	7.8	0	7.9	0	8.4	0	8.2	0
Feature Type (riffle, run, or pool)	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 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: [signature] Date: 9/21/07

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3138 Site #: 6

Estimated Channel Incision: 20 (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: 1650270440 UTM Y: 4092890 +/- 5 (meters) 37

11 UTM X: 1650270510 UTM Y: 4092662 +/- 5 (meters) 36

Average Stream Width: 9 (meters) (To determne Length of Reach)

Length of Survey Segment: 180 (meters) (20x average stream width)

Field Staff: AW + TH

Dissolved Oxygen

Date: 9/21/07 Time: 8:40

Dissolved Oxygen: 7.22 (mg/L)

Dissolved Oxygen: 78.6 (% sat)

Specific Cond: 258 (µS/cm)

Water Temperature: 19.45 (°C)

Transect Cross-Section

Station	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)
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	.92	.04	.83	.08	.79	.08	.88	.09	.92	.03	.87	.02	.91	.09	.89	.06	.88	.06	.92	.10	.92	.12
2	1.84	.07	1.66	.10	1.58	.16	1.76	.20	1.84	.04	1.74	.05	1.82	.0	1.78	.03	1.76	.10	1.84	.04	1.84	.08
3	2.76	.07	2.49	.08	2.37	.14	2.64	.14	2.76	.12	2.61	.04	2.73	.0	2.67	.09	2.64	.15	2.76	.0	2.76	.13
4	3.68	.11	3.32	.09	3.16	.10	3.52	.16	3.68	.11	3.48	.05	3.64	.02	3.56	.12	3.52	.14	3.68	.0	3.68	.07
5	4.6	.07	4.15	.10	3.95	.08	4.4	.10	4.6	.11	4.35	.05	4.55	.10	4.45	.15	4.4	.16	4.6	.0	4.6	.01
6	5.52	.04	4.98	.05	4.74	.10	5.28	.10	5.52	.03	5.22	.07	5.46	.13	5.34	.07	5.28	.14	5.52	.0	5.52	.01
7	6.44	.13	5.81	.07	5.53	.23	6.16	.09	6.44	.04	6.09	.12	6.37	.14	6.23	.07	6.16	.04	6.44	.16	6.44	.03
8	7.36	.12	6.64	.12	6.32	.26	7.04	.02	7.36	.06	6.96	.15	7.28	.10	7.12	.08	7.04	.02	7.36	.08	7.36	.02
9	8.28	.13	7.47	.19	7.11	.04	7.92	.01	8.28	.10	7.83	.12	8.19	.12	8.01	.12	7.92	.04	8.28	.07	8.28	.01
Right Bank	9.2	0	8.3	0	7.9	0	8.8	0	9.2	0	8.7	0	9.1	0	8.9	0	8.8	0	9.2	0	9.2	0
Feature Type (riffle, run, or pool)	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 bv dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: [signature] Date: 9/21/07

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3138 Site #: 7

Estimated Channel Incision: 20 (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: 16S 0270525 UTM Y: 4092619 +/- 8 (meters) 39

11 UTM X: 16S 0270586 UTM Y: 4092459 +/- 6 (meters) 34

Average Stream Width: 8 (meters) (To determne Length of Reach)

Length of Survey Segment: 160 (meters) (20x average stream width)

Field Staff: AW + TH

Dissolved Oxygen

Date: 9/21/07 Time: 8:16

Dissolved Oxygen: 7.0 (mg/L)

Dissolved Oxygen: 74.8 (% sat)

Specific Cond: 260 (µS/cm)

Water Temperature: 18.42 (°C)

Transect Cross-Section

Station	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)
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	.81	.08	.83	.05	.79	.05	.74	.04	.81	.03	.78	.11	.83	.13	.81	.07	.78	.04	.94	.15	.75	.12
2	1.62	.06	1.66	.05	1.58	.06	1.48	.10	1.62	.02	1.56	.22	1.66	.26	1.62	.11	1.56	.06	1.88	.10	1.5	.19
3	2.43	.03	2.49	.10	2.37	.09	2.22	.07	2.43	.02	2.34	.07	2.49	.18	2.43	.08	2.34	.05	2.82	.02	2.25	.21
4	3.24	.06	3.32	.12	3.16	.15	2.96	.07	3.24	.05	3.12	.07	3.32	.02	3.24	.12	3.12	.08	3.76	.04	3	.18
5	4.05	.04	4.15	.12	3.95	.19	3.7	.10	4.05	.06	3.9	.12	4.15	.07	4.05	.07	3.9	.02	4.7	.12	3.75	.13
6	4.86	.07	4.98	.12	4.74	.10	4.44	.14	4.86	.11	4.68	.08	4.98	.04	4.86	.0	4.68	.12	5.64	.10	4.5	.13
7	5.67	.17	5.81	.13	5.53	.08	5.28	.16	5.67	.12	5.46	.06	5.81	.03	5.67	.0	5.46	.16	6.58	.13	5.25	.13
8	6.48	.19	6.64	.20	6.32	.12	5.92	.19	6.48	.14	6.24	.06	6.64	.06	6.48	.12	6.24	.12	7.52	.17	6	.14
9	7.29	.13	7.47	.12	7.11	.17	6.66	.18	7.29	.11	7.02	.00	7.47	.07	7.29	.20	7.02	.14	8.46	.11	6.75	.09
Right Bank	8.1	0	8.3	0	7.9	0	7.4	0	8.1	0	7.8	0	8.3	0	8.1	0	7.8	0	9.4	0	7.5	0
Feature Type (riffle, run, or pool)	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 bv dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: Allyson Wilson Date: 9/21/07

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3138 Site #: 8

Estimated Channel Incision: 3 (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: 1650272096 UTM Y: 4090775 +/- 7 (meters) 32

11 UTM X: 1650272263 UTM Y: 4090668 +/- 8 (meters) 33

Average Stream Width: 9.0 (meters) (To determne Length of Reach)

Length of Survey Segment: 180 (meters) (20x average stream width)

Field Staff: AWATT

Dissolved Oxygen

Date: 9/21/07 Time: 07:19

Dissolved Oxygen: 4.96 (mg/L)

Dissolved Oxygen: 51.9 (% sat)

Specific Cond: 252 (µS/cm)

Water Temperature: 17.63 (°C)

Transect Cross-Section

Station	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)
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	.87	.17	.87	.26	.91	.19	.90	.15	.89	.11	.88	.12	.92	.15	.93	.13	.89	.13	.93	.17	.92	.16
2	1.74	.35	1.74	.28	1.82	.23	1.8	.29	1.78	.20	1.76	.24	1.84	.19	1.86	.22	1.78	.21	1.86	.27	1.84	.21
3	2.61	.37	2.61	.29	2.73	.27	2.7	.31	2.67	.28	2.64	.27	2.76	.24	2.79	.32	2.67	.24	2.79	.29	2.76	.19
4	3.48	.24	3.48	.33	3.64	.19	3.6	.28	3.56	.33	3.52	.28	3.68	.24	3.72	.29	3.56	.24	3.72	.21	3.68	.19
5	4.35	.17	4.35	.25	4.55	.19	4.5	.19	4.45	.33	4.4	.28	4.6	.24	4.65	.26	4.45	.25	4.65	.23	4.6	.13
6	5.22	.22	5.22	.25	5.46	.16	5.4	.20	5.34	.30	5.28	.29	5.52	.24	5.58	.25	5.34	.21	5.58	.25	5.52	.16
7	6.09	.24	6.09	.24	6.37	.16	6.3	.21	6.23	.26	6.16	.30	6.44	.26	6.51	.26	6.23	.23	6.51	.23	6.44	.12
8	6.96	.26	6.96	.25	7.28	.16	7.2	.23	7.12	.20	7.04	.29	7.36	.26	7.44	.24	7.12	.25	7.44	.15	7.36	.09
9	7.83	.14	7.83	.15	8.19	.11	8.1	.14	8.01	.14	7.92	.22	8.28	.16	8.37	.20	8.01	.17	8.37	.08	8.28	.12
Right Bank	8.7	0	8.7	0	9.1	0	9.0	0	8.9	0	8.8	0	9.2	0	9.3	0	8.9	0	9.3	0	9.2	0
Feature Type (riffle, run, or pool)	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 bv dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: Always Challenger Date: 9/21/07

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3138 Site #: 9

Estimated Channel Incision: 20 (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: 16S 0272394 UTM Y: 4089100 +/- 5 (meters) 30

11 UTM X: 16S 0272412 UTM Y: 4088909 +/- 5 (meters) 31

Average Stream Width: 9.0 (meters) Length of Survey Segment: 185 (meters)

(To determne Length of Reach) (20x average stream width)

Field Staff: AW & TH

Dissolved Oxygen

Date: 9/21/07 Time: 6:40

Dissolved Oxygen: 4.84 (mg/L)

Dissolved Oxygen: 52.1 (% sat)

Specific Cond: 252 (µS/cm)

Water Temperature: 18.87 (°C)

Transect Cross-Section

Station	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)
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	.87	.20	.89	.18	.85	.15	.91	.07	.90	.15	.88	.14	.93	.14	.89	.17	.91	.16	.94	.08	.90	.11
2	1.74	.37	1.78	.28	1.7	.23	1.82	.27	1.8	.49	1.76	.22	1.86	.40	1.78	.30	1.82	.18	1.88	.21	1.8	.24
3	2.61	.42	2.67	.39	2.55	.17	2.73	.42	2.7	.54	2.64	.22	2.79	.46	2.67	.31	2.73	.24	2.82	.30	2.7	.20
4	3.48	.43	3.56	.44	3.4	.12	3.64	.53	3.6	.47	3.52	.21	3.72	.16	3.56	.27	3.63	.26	3.76	.30	3.6	.14
5	4.35	.37	4.45	.49	4.25	.10	4.55	.52	4.5	.35	4.4	.21	4.65	.05	4.45	.24	4.55	.30	4.7	.28	4.5	.14
6	5.22	.31	5.34	.43	5.1	.15	5.46	.46	5.4	.34	5.28	.23	5.58	.23	5.34	.19	5.46	.31	5.64	.26	5.4	.16
7	6.09	.27	6.23	.46	5.95	.19	6.37	.40	6.3	.26	6.16	.22	6.51	.29	6.23	.18	6.37	.35	6.58	.25	6.3	.11
8	6.96	.15	7.12	.24	6.8	.15	7.28	.32	7.2	.19	7.04	.20	7.44	.39	7.12	.15	7.28	.30	7.52	.22	7.2	.10
9	7.83	.07	8.01	.15	7.65	.08	8.19	.14	8.1	.24	7.92	.13	8.37	.18	8.01	.10	8.19	.17	8.46	.13	8.1	.10
Right Bank	8.7	0	8.9	0	8.5	0	9.1	0	9.0	0	8.8	0	9.3	0	8.9	0	9.1	0	9.4	0	9.0	0
Feature Type (riffle, run, or pool)	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 bv dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: [signature] Date: 9/21/07

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3138 Site #: 10

Estimated Channel Incision: .10 (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: 165 0272227	UTM Y: 4086419	+/- 5 (meters)	current	28
11	UTM X: 165 0272244	UTM Y: 4086199	+/- 6 (meters)		29

Average Stream Width: 10.0 (meters) (To determne Length of Reach)

Length of Survey Segment: 200 (meters) (20x average stream width)

Field Staff: AW + TH

Dissolved Oxygen

Date: 9/20/07 Time: 16:29

Dissolved Oxygen: 6.27 (mg/L)

Dissolved Oxygen: 74.6 (% sat)

Specific Cond: 249 (µS/cm)

Water Temperature: 24.06 (°C)

Transect Cross-Section

Station	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)
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	.94	.12	.95	.15	.99	.11	.96	.18	1.03	.13	.97	.18	1.04	.13	.98	.17	1.00	.19	1.01	.17	.97	.16
2	1.88	.26	1.9	.30	1.98	.27	1.92	.36	2.06	.31	1.94	.28	2.08	.33	1.96	.37	2	.29	2.02	.34	1.94	.42
3	2.92	.42	2.85	.44	2.97	.37	2.88	.45	3.09	.41	2.91	.29	3.12	.43	2.94	.38	3	.30	3.03	.29	2.91	.48
4	3.76	.40	3.8	.47	3.96	.35	3.84	.45	4.12	.37	3.88	.29	4.16	.43	3.92	.28	4	.33	4.04	.35	3.88	.49
5	4.7	.28	4.75	.44	4.95	.36	4.8	.40	5.15	.35	4.85	.29	5.20	.41	4.9	.33	5	.35	5.05	.35	4.85	.30
6	5.64	.20	5.7	.44	5.94	.42	5.76	.43	6.18	.32	5.82	.30	6.24	.43	5.88	.31	6	.36	6.06	.32	5.82	.31
7	6.58	.21	6.65	.39	6.93	.47	6.72	.53	7.21	.37	6.79	.36	7.28	.43	6.86	.36	7	.26	7.07	.37	6.79	.30
8	7.52	.21	7.6	.30	7.92	.24	7.68	.40	8.24	.39	7.76	.40	8.32	.33	7.84	.41	8	.17	8.08	.38	7.76	.27
9	8.46	.10	8.55	.16	8.91	.06	8.64	.16	9.27	.22	8.73	.19	9.36	.16	8.82	.15	9	.10	9.09	.16	8.73	.19
Right Bank	9.4	0	9.5	0	9.9	0	9.6	0	10.3	0	9.7	0	10.4	0	9.8	0	10.0	0	10.1	0	9.7	0
Feature Type (riffle, run, or pool)	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 bv dividing wetted width by ten)
Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)
All measurements to be taken to the nearest 0.01 meter.

Signed: [signature] Date: 9/20/07

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3138 Site #: 11

Estimated Channel Incision: .10 (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: 16 502722247 UTM Y: 4086187 +/- 5 (meters) wpt 26

11 UTM X: 16 502722219 UTM Y: 4085976 +/- 5 (meters) 27

Average Stream Width: 10.0 (meters) (To determne Length of Reach)

Length of Survey Segment: 200 (meters) (20x average stream width)

Field Staff: AWTH

Dissolved Oxygen

Date: 9/20/07 Time: 15:51

Dissolved Oxygen: 5.86 (mg/L)

Dissolved Oxygen: 69.7 (% sat)

Specific Cond: 250 (µS/cm)

Water Temperature: 24.11 (°C)

Transect Cross-Section

Station	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)
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	.98	.15	.97	.19	.94	.14	.96	.17	.89	.33	1.01	.20	.99	.14	.92	.14	1.04	.11	1.03	.09	1.01	.06
2	1.96	.39	1.94	.41	1.88	.30	1.92	.41	1.78	.36	2.02	.30	1.98	.36	1.84	.27	2.08	.22	2.06	.27	2.02	.19
3	2.94	.40	2.91	.40	2.82	.21	2.88	.40	2.67	.33	3.03	.39	2.97	.53	2.76	.41	3.12	.38	3.09	.40	3.03	.34
4	3.92	.40	3.88	.40	3.76	.39	3.84	.40	3.56	.38	4.04	.39	3.96	.38	3.68	.56	4.16	.52	4.12	.45	4.04	.52
5	4.9	.40	4.85	.38	4.7	.36	4.8	.40	4.45	.40	5.05	.39	4.95	.40	4.6	.50	5.20	.53	5.15	.42	5.05	.55
6	5.88	.39	5.82	.41	5.64	.34	5.76	.39	5.34	.40	6.06	.37	5.94	.40	5.52	.46	6.24	.46	6.18	.40	6.06	.56
7	6.86	.40	6.79	.46	6.58	.33	6.72	.39	6.23	.40	7.07	.37	6.93	.37	6.44	.42	7.28	.46	7.21	.51	7.07	.47
8	7.84	.38	7.76	.32	7.52	.34	7.68	.45	7.12	.47	8.08	.42	7.92	.28	7.36	.38	8.32	.35	8.24	.29	8.08	.42
9	8.82	.16	8.73	.13	8.46	.22	8.64	.17	8.01	.16	9.09	.41	8.91	.12	8.28	.25	9.36	.19	9.27	.18	9.09	.14
Right Bank	9.8	0	9.7	0	9.4	0	9.16	0	8.9	0	10.1	0	9.9	0	9.2	0	10.4	0	10.3	0	10.1	0
Feature Type (riffle, run, or pool)	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 bv dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: [signature] Date: 9/20/07

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3138 Site #: ~~0~~ 12

Estimated Channel Incision: 30 (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: 1650271653 UTM Y: 4084448 +/- 5 (meters) typ 25

11 UTM X: 1650271532 UTM Y: 4084273 +/- 7 (meters) 24

Average Stream Width: 10 (meters) (To determne Length of Reach)

Length of Survey Segment: 200 (meters) (20x average stream width)

Field Staff: AW + TH

Dissolved Oxygen

Date: 9/20/07 Time: 14:45

Dissolved Oxygen: 5.35 (mg/L)

Dissolved Oxygen: 64.7 (% sat)

Specific Cond: 248 (µS/cm)

Water Temperature: 24.86 (°C)

Transect Cross-Section

Station	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)
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	1.01	.08	.91	.13	.98	.18	.97	.04	1.02	.14	.99	.19	.96	.13	.99	.11	1.02	.19	.96	.14	.94	.10
2	2.02	.31	1.82	.47	1.96	.49	1.94	.38	2.04	.53	1.98	.59	1.92	.35	1.98	.38	2.04	.22	1.92	.42	1.88	.33
3	3.03	.37	2.73	.45	2.94	.63	2.91	.70	3.06	.68	2.97	.70	2.88	.55	2.97	.60	3.06	.38	2.88	.63	2.82	.54
4	4.04	.30	3.64	.41	3.92	.77	3.88	.75	4.08	.64	3.96	.68	3.84	.66	3.96	.84	4.08	.60	3.84	.67	3.76	.48
5	5.05	.32	4.55	.48	4.9	.70	4.85	.68	5.10	.67	4.95	.65	4.8	.71	4.95	.86	5.10	.82	4.8	.67	4.7	.41
6	6.06	.36	5.46	.50	5.88	.65	5.82	.69	6.12	.66	5.94	.64	5.76	.74	5.94	.81	6.12	.73	5.76	.58	5.64	.26
7	7.07	.37	6.37	.55	6.86	.63	6.79	.73	7.14	.65	6.93	.61	6.72	.71	6.93	.81	7.14	.65	6.72	.47	6.58	.18
8	8.08	.17	7.28	.42	7.84	.50	7.76	.61	8.16	.43	7.92	.43	7.68	.76	7.92	.43	8.16	.38	7.68	.22	7.52	.16
9	9.09	.02	8.19	.20	8.82	.13	8.73	.34	9.18	.12	8.91	.09	8.64	.07	8.91	.12	9.18	.13	8.64	.14	8.46	.08
Right Bank	10.1	0	9.1	0	9.8	0	9.7	0	10.2	0	9.9	0	9.0	0	9.9	0	10.2	0	9.6	0	9.4	0
Feature Type (riffle, run, or pool)	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 bv dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: [signature] Date: 9/20/07

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3138 Site #: 13

Estimated Channel Incision: .20 (m) (height between low bank width and water)

GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate (EPE / PDOP / FOM)

switched order

01 UTM X: 16S 0272396 UTM Y: 4079322 +/- 5 (meters) 6 ppt 22

11 UTM X: 16S 0272409 UTM Y: 4079606 +/- 5 (meters) 23

Average Stream Width: 13.75 (meters) (To determne Length of Reach)

Length of Survey Segment: 275 (meters) (20x average stream width)

Field Staff: AW + TH

Dissolved Oxygen

Date: 9/20/07 Time: 13:53

Dissolved Oxygen: 8.98 (mg/L)

Dissolved Oxygen: 117.2 (% sat)

Specific Cond: 348 (µS/cm)

Water Temperature: 29.17 (°C)

Transect Cross-Section

Station	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)
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	1.30	.44	1.36	.18	1.39	.14	1.43	.18	1.21	.12	1.32	28	1.35	.21	1.36	.27	1.29	.06	1.35	.12	1.39	.10
2	2.60	.23	2.72	.21	2.78	.12	2.86	.16	2.42	.20	2.64	.25	2.7	.27	2.72	0	2.58	.14	2.7	.23	2.78	.17
3	3.90	.19	4.08	.19	4.17	.17	4.29	.18	3.63	.20	3.96	.19	4.05	.14	4.08	0	3.87	.14	4.05	.22	4.17	.05
4	5.2	.17	5.44	.20	5.56	.08	5.72	.18	4.84	.25	5.28	.15	5.4	.14	5.44	.09	5.16	.18	5.4	.19	5.56	.14
5	6.5	.12	6.8	.21	6.95	.04	7.15	.17	6.05	.35	6.6	.09	6.75	.16	6.8	.15	6.45	.14	6.75	.13	6.95	.23
6	7.8	.09	8.16	.14	8.34	.23	8.58	.12	7.26	.30	7.92	.0	8.1	.17	8.16	.15	7.74	.27	8.1	.10	8.34	.22
7	9.1	.10	9.52	.016	9.73	.24	10.01	.17	8.47	.24	9.24	.10	9.45	.19	9.52	.27	9.03	.20	9.45	.15	9.73	.17
8	10.4	.24	10.88	.04	11.12	.37	11.44	.27	9.68	.19	10.56	.08	10.8	.25	10.88	.30	10.32	.30	10.8	.15	11.12	.14
9	11.7	.33	12.24	.06	12.51	.13	12.87	.11	10.89	.08	11.88	.02	12.15	.17	12.24	.27	11.61	.24	12.15	.21	12.51	.05
Right Bank	13.8	0	13.6	0	13.9	0	14.3	0	12.1	0	13.2	0	13.5	0	13.6	0	12.9	0	13.5	0	13.9	0
Feature Type (riffle, run, or pool)	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 bv dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: [signature] Date: 9/20/07

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3138 Site #: 14

Estimated Channel Incision: waterway directed drainage (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: 16S 0272392	UTM Y: 4079308	+/- 6	(meters)	wpt 20
11	UTM X: 16S 0272393	UTM Y: 4079031	+/- 5	(meters)	21

Average Stream Width: 13.5 (meters) (To determne Length of Reach)

Length of Survey Segment: 275 (meters) (20x average stream width)

Field Staff: KW + TH

Dissolved Oxygen

Date: 9/20/07 Time: 12:59

Dissolved Oxygen: 8.57 (mg/L)

Dissolved Oxygen: 110.5 (% sat)

Specific Cond: 320 (µS/cm)

Water Temperature: 28.49 (°C)

Transect Cross-Section

Station	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)
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	1.34	.12	1.32	.18	1.26	.25	1.28	.22	1.30	.19	1.34	.19	1.39	.13	1.36	.26	1.32	.20	1.40	.15	1.37	.19
2	2.68	.13	2.64	.21	2.52	.30	2.56	.21	2.60	.24	2.68	.20	2.78	.23	2.72	.23	2.64	.11	2.80	.19	2.74	.17
3	4.02	.08	3.96	.19	3.78	.24	3.84	.30	3.90	.24	4.02	.20	4.17	.24	4.08	.21	3.96	.10	4.2	.20	4.11	.20
4	5.36	.38	5.28	.23	5.04	.22	5.12	.29	5.2	.24	5.36	.17	5.56	.22	5.44	.24	5.28	.13	5.6	.19	5.48	.17
5	6.7	.40	6.6	.29	6.3	.24	6.4	.33	6.5	.22	6.7	.16	6.95	.19	6.8	.15	6.6	.17	7	.18	6.85	.17
6	8.04	.51	7.92	.24	7.56	.22	7.68	.32	2.8	.22	8.04	.17	8.34	.18	8.16	.14	7.92	.17	8.4	.17	8.22	.13
7	9.38	.39	9.24	.28	8.82	.21	8.96	.35	9.1	.22	9.38	.21	9.73	.19	9.52	.14	9.24	.18	9.8	.12	9.59	.15
8	10.72	.35	10.56	.31	10.08	.28	10.24	.29	10.4	.23	10.72	.27	11.12	.22	10.88	.14	10.56	.31	11.2	.15	10.96	.10
9	12.06	.19	11.88	.28	11.34	.30	11.52	.08	11.7	.09	12.06	.29	12.51	.19	12.24	.20	11.88	.19	12.6	.09	12.33	.12
Right Bank	13.4	0	13.2	0	12.6	0	12.8	0	13.0	0	13.4	0	13.9	0	13.6	0	13.2	0	14.0	0	13.7	0
Feature Type (riffle, run, or pool)	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 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: [signature] Date: 9/20/07

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3138 Site #: 15

Estimated Channel Incision: .20 (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: 1650272401 UTM Y: 4077741 +/- 6 (meters) (right 18)

11 UTM X: 1650272466 UTM Y: 4077431 +/- 6 (meters) 19

Average Stream Width: 17.5 (meters) (To determne Length of Reach)

Length of Survey Segment: 300 (meters) (20x average stream width)

Field Staff: AW & TH

Dissolved Oxygen

Date: 9/20/07 Time: 11:01

Dissolved Oxygen: 7.97 (mg/L)

Dissolved Oxygen: 94.6 (% sat)

Specific Cond: 344 (µS/cm)

Water Temperature: 23.96 (°C)

Transect Cross-Section

Station	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)
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	1.69	.24	1.71	.29	1.63	.16	1.68	.07	1.71	.15	1.78	.20	1.69	.20	1.71	.19	1.63	.17	1.69	.19	1.60	.14
2	3.38	.24	3.42	.30	3.26	.19	3.36	.09	3.42	.09	3.56	.26	3.38	.20	3.42	.13	3.26	.06	3.38	.21	3.2	.09
3	5.07	.26	5.13	.28	4.89	.19	5.04	.10	5.13	.08	5.34	.19	5.07	.24	5.13	.14	4.89	.10	5.07	.21	4.8	.08
4	6.76	.27	6.84	.25	6.52	.20	6.72	.12	6.84	.09	7.12	.15	6.76	.17	6.84	.12	6.52	.08	6.76	.16	6.4	.03
5	8.45	.25	8.55	.19	8.15	.16	8.4	.09	8.55	.12	8.9	.12	8.45	.03	8.55	.12	8.15	.10	8.45	.13	8	.11
6	10.14	.20	10.26	.19	9.78	.09	10.08	.13	10.26	.22	10.68	.10	10.14	.0	10.26	.12	9.78	.10	10.14	.11	9.6	.12
7	11.83	.17	11.97	.14	11.41	.09	11.76	.23	11.97	.25	12.46	.12	11.83	.16	11.97	.17	11.41	.15	11.83	.12	11.2	.23
8	13.52	.08	13.68	.10	13.04	.15	13.44	.26	13.68	.24	14.24	.11	13.52	.08	13.68	.19	13.04	.22	13.52	.13	12.8	.09
9	15.21	.26	15.39	.08	14.67	.38	15.12	.21	15.39	.07	16.02	.16	15.21	.07	15.39	.11	14.67	.17	15.21	.19	14.4	.40
Right Bank	16.9	0	17.1	0	16.3	0	16.8	0	17.1	0	17.8	0	16.9	0	17.1	0	16.3	0	16.9	0	16.0	0
Feature Type (riffle, run, or pool)	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 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: [signature] Date: 9/20/07

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3138 Site #: 16

Estimated Channel Incision: .10 (m) (height between low bank width and water)

GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate (EPE / PDOP / FOM)

					wypt
01	UTM X: 16S 0273288	UTM Y: 4074419	+/- 8	(meters)	16
11	UTM X: 16S 0273355	UTM Y: 4074112	+/- 8	(meters)	17

Average Stream Width: 28.0 (meters) (To determne Length of Reach)

Length of Survey Segment: 300 (meters) (20x average stream width)

Field Staff: AW + TH

Dissolved Oxygen

Date: 9/20/07 Time: 10:04

Dissolved Oxygen: 7.32 (mg/L)

Dissolved Oxygen: 83.6 (% sat)

Specific Cond: 266 (µS/cm)

Water Temperature: 21.98 (°C)

Transect Cross-Section

Station	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)
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	2.83	.35	2.85	.36	2.88	.16	2.84	.37	2.91	.34	2.87	.28	2.94	.40	2.87	.37	2.89	.20	2.90	.32	2.92	.22
2	5.66	.27	5.7	.29	5.76	.14	5.68	.32	5.82	.41	5.74	.39	5.88	.38	5.74	.36	5.78	.42	5.8	.21	5.84	.25
3	8.49	.30	8.55	.24	8.64	.38	8.52	.28	8.73	.27	8.61	.33	8.82	.32	8.61	.35	8.67	.32	8.7	.22	8.76	.34
4	11.32	.37	11.4	.26	11.52	.27	11.36	.26	11.64	.38	11.48	.34	11.76	.32	11.48	.29	11.56	.28	11.6	.27	11.68	.36
5	14.15	.40	14.25	.27	14.4	.44	14.2	.32	14.55	.30	14.35	.30	14.7	.30	14.35	.26	14.45	.25	14.5	.31	14.6	.35
6	16.98	.40	17.1	.37	17.28	.27	17.04	.30	17.46	.29	17.22	.31	17.64	.32	17.22	.25	17.34	.27	17.4	.30	17.52	.32
7	19.81	.35	19.95	.42	20.16	.31	19.88	.37	20.37	.30	20.09	.31	20.58	.27	20.09	.24	20.23	.27	20.3	.29	20.44	.31
8	22.64	.27	22.8	.42	23.04	.37	22.72	.38	23.28	.34	22.96	.32	23.52	.29	22.96	.29	23.12	.31	23.2	.35	23.36	.38
9	25.47	.21	25.65	.38	25.92	.30	25.56	.40	26.19	.37	25.83	.21	26.46	.25	25.83	.26	26.01	.34	26.1	.24	26.28	.34
Right Bank	28.3	0	28.5	0	28.8	0	28.4	0	29.1	0	28.7	0	29.4	0	28.7	0	28.9	0	29.0	0	29.2	0
Feature Type (riffle, run, or pool)	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 bv dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: [signature] Date: 9/20/07

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3138 Site #: 17

Estimated Channel Incision: .30 (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: 16S 0274076 UTM Y: 4071453 +/- 8 (meters) wpt 15

11 UTM X: 16S 0274232 UTM Y: 4071177 +/- 6 (meters) 14

Average Stream Width: 29.5 (meters) Length of Survey Segment: 300 (meters)
(To determne Length of Reach) (20x average stream width)

Field Staff: AW + TH

Dissolved Oxygen

Date: 9/20/07 Time: 9:10

Dissolved Oxygen: 7.72 (mg/L)

Dissolved Oxygen: 88.6 (% sat)

Specific Cond: 289 (µS/cm)

Water Temperature: 22.18 (°C)

Transect Cross-Section

Station	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)
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	2.93	.22	2.88	.30	2.91	.29	2.87	.63	2.90	.38	2.86	.44	2.88	.26	2.93	.24	2.89	.24	2.93	.16	2.97	.14
2	5.86	.27	5.76	.33	5.82	.30	5.74	.56	5.8	.52	5.72	.49	5.76	.31	5.86	.24	5.78	.28	5.86	.29	5.94	.17
3	8.79	.30	8.64	.27	8.73	.34	8.61	.40	8.7	.46	8.58	.43	8.64	.35	8.79	.35	8.67	.24	8.79	.30	8.91	.28
4	11.72	.30	11.52	.28	11.64	.35	11.48	.37	11.6	.40	11.44	.40	11.52	.30	11.72	.36	11.56	.25	11.72	.28	11.88	.36
5	14.65	.29	14.4	.28	14.55	.33	14.35	.33	14.5	.31	14.3	.34	14.4	.30	14.65	.28	14.45	.24	14.65	.27	14.85	.29
6	17.58	.25	17.28	.28	17.46	.38	17.22	.29	17.4	.29	17.16	.29	17.28	.30	17.58	.28	17.34	.26	17.58	.28	17.82	.25
7	20.51	.23	20.16	.30	20.37	.31	20.09	.28	20.3	.27	20.02	.25	20.16	.26	20.51	.29	20.23	.30	20.51	.26	20.79	.20
8	23.44	.24	23.04	.33	23.28	.34	22.96	.26	23.2	.36	22.88	.28	23.04	.30	23.44	.30	23.12	.30	23.44	.30	23.79	.20
9	26.37	.26	25.92	.30	26.19	.29	25.83	.20	26.1	.22	25.74	.23	25.92	.22	26.37	.27	26.01	.30	26.37	.35	26.73	.39
Right Bank	29.3	0	28.8	0	29.1	0	28.7	0	29.0	0	28.6	0	28.8	0	29.3	0	28.9	0	29.3	0	29.7	0
Feature Type (riffle, run, or pool)	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 bv dividing wetted width by ten)
Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)
All measurements to be taken to the nearest 0.01 meter.

Signed: [signature] Date: 9/20/07

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3138 Site #: 18

Estimated Channel Incision: 30 (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:	16 S 0274230	UTM Y:	4071149	+/- 5 (meters)	WPT 12
11	UTM X:	16 S 0274407	UTM Y:	4070890	+/- 5 (meters)	13

Average Stream Width: 29 (meters) (To determne Length of Reach)

Length of Survey Segment: 300 (meters) (20x average stream width)

Field Staff: AW + TH

Dissolved Oxygen

Date: 9/20/07 Time: 8:26

Dissolved Oxygen: 7.90 (mg/L)

Dissolved Oxygen: 83.5 (% sat)

Specific Cond: 292 (µS/cm)

Water Temperature: 20.60 (°C)

Transect Cross-Section

Station	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)
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	2.82	.39	2.83	.42	2.86	.29	2.84	.19	2.91	.27	2.93	.34	2.95	.27	2.84	.20	2.87	.30	2.87	.20	2.93	.29
2	5.64	.54	5.66	.31	5.72	.28	5.68	.29	5.82	.24	5.86	.32	5.9	.30	5.68	.24	5.74	.40	5.74	.13	5.86	.20
3	8.46	.56	8.49	.35	8.58	.26	8.52	.21	8.73	.15	8.79	.30	8.85	.30	8.52	.22	8.61	.32	8.61	.15	8.79	.20
4	11.28	.54	11.32	.30	11.44	.26	11.36	.19	11.64	.20	11.72	.24	11.8	.24	11.36	.27	11.48	.30	11.48	.19	11.72	.24
5	14.1	.57	14.15	.35	14.3	.29	14.2	.19	14.55	.24	14.65	.22	14.75	.23	14.2	.27	14.35	.28	14.35	.24	14.65	.28
6	16.92	.39	16.98	.37	17.16	.32	17.04	.22	17.44	.28	17.58	.24	17.7	.20	17.04	.31	17.22	.26	17.22	.28	17.58	.30
7	19.74	.30	19.81	.37	20.02	.38	19.88	.30	20.37	.31	20.51	.22	20.65	.21	19.88	.26	20.09	.19	20.09	.28	20.51	.28
8	22.56	.39	22.64	.36	22.88	.48	22.72	.25	23.28	.37	23.44	.29	23.6	.24	22.72	.24	22.96	.28	22.96	.29	23.44	.32
9	25.38	.27	25.47	.38	25.74	.35	25.56	.33	26.19	.40	26.37	.25	26.55	.29	25.56	.23	25.83	.12	25.83	.28	26.37	.20
Right Bank	28.7	0	28.3	0	28.6	0	28.4	0	29.1	0	29.3	0	29.5	0	28.4	0	28.7	0	28.7	0	29.3	0
Feature Type (riffle, run, or pool)	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 bv dividing wetted width by ten)
Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)
All measurements to be taken to the nearest 0.01 meter.

Signed: [signature] Date: 9/20/07

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3138 Site #: 19

Estimated Channel Incision: .40 (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: 16 502753 93 UTM Y: 4069510 +/- 8 (meters) w/pt 11

11 UTM X: UTM Y: +/- (meters)

Average Stream Width: 29m (meters) (To determne Length of Reach)

Length of Survey Segment: 300 should be (meters) (20x average stream width)

Field Staff: AW + TH

Dissolved Oxygen

Date: 9/20/07 Time: 8:00

Dissolved Oxygen: 7.65 (mg/L)

Dissolved Oxygen: 84.8 (% sat)

Specific Cond: 283 (µS/cm)

Water Temperature: 20.3 (°C)

Transect Cross-Section

Station	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)
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	2.84	.50																				
2	5.68	.65																				
3	8.52	.70																				
4	11.36	1.0																				
5	14.2	1.2																				
6	17.04	1.0																				
7	19.88	.85																				
8	22.72	.60																				
9	25.56	.53																				
Right Bank	28.4	0		0		0		0		0		0		0		0		0		0		0
Feature Type (riffle, run, or pool)	run																					

pole + line method used

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 bv dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: [signature] Date: 9/20/07

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3138 Site #: 20

Estimated Channel Incision: .40 (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: _____ UTM Y: _____ +/- _____ (meters) appx

11 UTM X: 165 0278816 UTM Y: 4106521 +/- 6 (meters) should be 10

Average Stream Width: 30+m (meters) (To determne Length of Reach)

Length of Survey Segment: 300 (meters) (20x average stream width)

Field Staff: AW + TH

Dissolved Oxygen

Date: 9/20/07 Time: 07:22

Dissolved Oxygen: 7.65 (mg/L)

Dissolved Oxygen: 85.4 (% sat)

Specific Cond: 289 (µS/cm)

Water Temperature: 20.74 (°C)

Transect Cross-Section

Station	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)
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																					2.7	.50
2																					5.4	.90
3																					8.1	1.4
4												Pole									10.8	1.4
5																					13.5	1.1
6												time									16.2	.97
7																					18.9	1.1
8																					21.6	.80
9																					24.3	.90
Right Bank		0		0		0		0		0		0		0		0		0		0	27	0
Feature Type (riffle, run, or 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 bv dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: _____ Date: 9/20/07

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3138 Site #: 21

Estimated Channel Incision: .45 (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: 1650278795 UTM Y: 4061511 +/- 9 (meters) wypt 9

11 UTM X: _____ UTM Y: _____ +/- _____ (meters)

Average Stream Width: 29-30 (meters) Length of Survey Segment: should be 300 (meters)

(To determne Length of Reach) (20x average stream width)

Field Staff: AW + TH

Dissolved Oxygen

Date: 9/20/07 Time: 7:20

Dissolved Oxygen: 7.62 (mg/L)

Dissolved Oxygen: 85.3 (% sat)

Specific Cond: 289 (µS/cm)

Water Temperature: 20.86 (°C)

Transect Cross-Section

Station	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)
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	2.9	.8																				
2	5.8	1.0																				
3	8.7	1.3																				
4	11.6	1.5																				
5	14.5	1.5																				
6	17.4	1.2																				
7	20.3	1.0																				
8	23.2	.9																				
9	26.1	.9																				
Right Bank	29	0		0		0		0		0		0		0		0		0		0		0
Feature Type (riffle, run, or pool)	run																					

Pobet line method

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 bv dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: [signature] Date: 9/20/07

WBID# 3138

Site# 1 Photo ID# H-003, Downstream T-1

Site# 1 Photo ID# H-004, Upstream T-11

Site# 2 Photo ID# H-006, Downstream T-1

Site# 2 Photo ID# H-005, Upstream T-11

WBID# 3138

Site# 3 Photo ID# H-007, Downstream T-1

Site# 3 Photo ID# H-008, Upstream T-11

Site# 4 Photo ID# H-049, Downstream T-1

Site# 4 Photo ID# H-050, Upstream T-11

WBID# 3138

Site# 5 Photo ID# H-047, Downstream T-1

Site# 5 Photo ID# H-048, Upstream T-11

Site# 6 Photo ID# H-045, Upstream T-11

Site# 6 Photo ID# H-046, Downstream T-1

WBID# 3138

Site# 7 Photo ID# H-043, Upstream T-11

Site# 7 Photo ID# H-044, Downstream T-1

WBID# 3138

Site# 8 Photo ID# H-039, Downstream T-1

Site# 8 Photo ID# H-040, Footpath by stream

Site# 8 Photo ID# H-041, Boat and fishing dock

Site# 8 Photo ID# H-042, Upstream T-11

WBID# 3138

Site# 9 Photo ID# H-036, ATV tracks to ditch

Site# 9 Photo ID# H-037, Downstream T-1

Site# 9 Photo ID# H-038, Upstream T-11

WBID# 3138

Site# 10 Photo ID# H-033, Downstream T-1

Site# 10 Photo ID# H-035, Upstream T-11

Site# 10 Photo ID# H-034, Footpath to stream

WBID# 3138

Site# 11 Photo ID# H-030, Downstream T-1

Site# 11 Photo ID# H-031, Upstream T-11

Site# 11 Photo ID# H-032, Path to ditch

WBID# 3138

Site# 12 Photo ID# H-025, Access to stream

Site# 12 Photo ID# H-026, Access to stream

Site# 12 Photo ID# H-027, Upstream T-11

Site# 12 Photo ID# H-029, Downstream T-1

WBID# 3138

Site# 12 Photo ID# H-028, Boat on stream bank

Site# 13 Photo ID# H-023, Upstream T-11

Site# 13 Photo ID# H-024, Downstream T-1

WBID# 3138

Site# 14 Photo ID# H-020, Downstream T-1

Site# 14 Photo ID# H-021, Upstream T-11

Site# 14 Photo ID# H-022, Water influencing site

WBID# 3138

Site# 15 Photo ID# H-018, Downstream T-1

Site# 15 Photo ID# H-019, Upstream T-11

Site# 16 Photo ID# H-016, Downstream T-1

Site# 16 Photo ID# H-017, Upstream T-11

WBID# 3138

Site# 17 Photo ID# H-014, Upstream T-11

Site# 17 Photo ID# H-015, Downstream T-1

Site# 18 Photo ID# H-012, Downstream T-1

Site# 18 Photo ID# H-013, Upstream T-11

WBID# 3138

Site# 19 Photo ID# H-011, Downstream T-1

Site# 20 Photo ID# H-010, Upstream T-11

Site# 21 Photo ID# H-009, Downstream T-1

Weather Conditions

Weather conditions ten days pervious to stream assessment are listed in the tables below. The date(s) that the stream was assessed are shaded.

Data from the Weather Underground
Cape Girardeau Airport, Missouri – Scott County

Date	Precipitation (Inches)	Min. Temp (ºF)	Max. Temp (ºF)	Avg. Temp (ºF)
09/09/2007	0.28	66	86	75
09/10/2007	0.01	64	88	76
09/11/2007	0.02	55	78	67
09/12/2007	0.01	51	81	66
09/13/2007	0.00	48	84	66
09/14/2007	0.00	61	81	72
09/15/2007	0.00	46	68	56
09/16/2007	0.00	46	73	60
09/17/2007	0.00	57	87	72
09/18/2007	0.00	64	88	76
9/19/2007	0.00	57	87	72
9/20/2007	0.00	57	89	73
9/21/2007	0.00	53	89	71