Missouri Department of Natural Resources

Use Attainability Analysis

for

WBID 1685 Busch Creek

Submitted by
MEC Water Resources

To
Missouri Department of Natural Resources
Water Protection Program

On
December 1, 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):	Busch Cr.
Missouri Water Body Identification (WBID) Number:	1685
8-digit HUC: 20080924	County: Franklin
Upstream Legal Description (from Table H):	34, 44N, 1W
Downstream Legal Description(from Table H):	Mouth
Number of sites evaluated	3
List all sites numbers, listed consecutively upstream to downstream: Site1: upstream Camp St. Site2: Camp St. Site3: 100m downstream of site 2	

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

Discharger Facility Name(s):	Meadow Lake Farm Subdivis.
Discharger Permit Number(s):	MO ø 110094

III. UAA Surveyor (please print legibly)

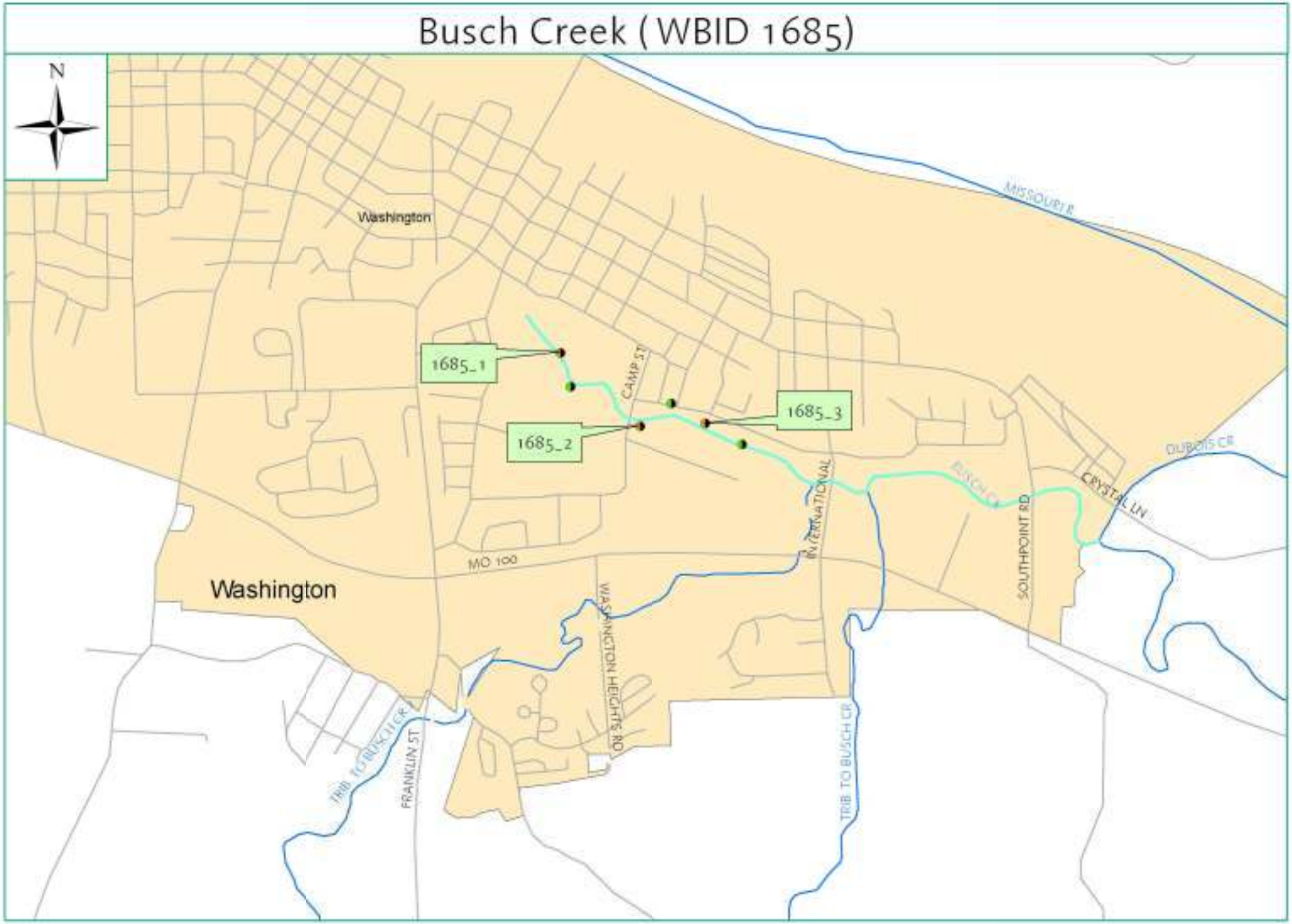
Name of Surveyor Renee Martin	Telephone Number: 573-875-7844
Organization/Employer: AE Solutions	
Position: Env. Specialist	

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

Signed: Renee Martin **Date:** 10/11/07

Rec 10-23-07

Busch Creek (WBID 1685)



WBID # 1685
Site # 1

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 10/11/07 0830	Site Location Description (e.g., road crossing): upstream Camp St
Personnel (Data Collectors): RM / JF	
Current Weather Conditions: Clear	Facility Name: Meadow Lake Farm Subdivs.
Weather Conditions for Past 10 days: Clear	Permit Number: MO 0110094
Drought Conditions?: No drought X; Phase I □; Phase II □; Phase III □; Phase IV □; Unknown □	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)			
Site 01	Easting (UTM X): 4268351	Northing (UTM Y): 0674333	Horizontal Accuracy: (EPE / FOM / PDOP) 24 ~~Meters~~ ft
Site 11	Easting (UTM X): 4268214	Northing (UTM Y): 0674375	Horizontal Accuracy: (EPE / FOM / PDOP) 24 ~~Meters~~ ft

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
100-29	Upstream Sit 1	100-30	DN Stream Sit 2	100-31	Fire hose tied to tree - across creek
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	X 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 # 1685

Site # 1

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:
Town area - city streets

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:
Fire hose tied across creek - photo # 31 @ Transect #9 site #1

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

40	% Cobble	15	% Gravel	15	% Sand		% Silt	10	% Mud/Clay	20	% Bedrock

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

Lots of benthic algae on cobble & gravel.

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 # 1685

Site # 1

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.)

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: 10/11/07

Organization: AE Solutions Position: Env. Specialist

QAQC 10-23-07

Recreational Use Attainability Analysis Field Survey Sheet

Waterbody ID: 1685 Site #: 1685-01 (WBID_Site#)

Estimated Channel Incision: 1.5 (m) (height between low bank width and water)

GPS Location (taken at transect 1):
UTM X: 4268351 UTM Y: 674333
Horizontal Accuracy Estimate (GPS Data Quality): +/- 24 (feet)

GPS Location (taken at transect 11):
UTM X: 4268214 UTM Y: 674375
Horizontal Accuracy Estimate (GPS Data Quality): +/- 24 (feet)

Average Stream Width: 4.0 (meters) Length of Survey Segment: 150 (meters)
(To determne Length of Reach) (20x average stream width)

Field Staff: R. Martin & J. Foth

Dissolved Oxygen

Date: 10/11/07 Time: 0830

Dissolved Oxygen: 4.69 (mg/L)

Dissolved Oxygen: 44.8 (% sat)

Specific Cond: 216.4 (µS/cm)

Water Temp.: 13.5 (°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	0.27	0.02	0.44	0.15	0.62	0.16	0.30	0.01	0.20	<0.01	0.74	0.30	0.25	0.05	0.36	0.14	0.17	0.04	0.56	0.20	0.38	0.05
2	0.54	0.01	0.88	0.21	1.24	0.24	0.60	<0.01	0.40	<0.01	1.48	0.24	0.50	0.06	0.72	0.19	0.34	0.08	1.12	0.27	0.76	0.14
3	0.81	0.01	1.32	0.19	1.86	0.27	0.90	0.01	0.60	dry	2.22	0.22	0.75	0.12	1.08	0.16	0.51	0.10	1.68	0.34	1.14	0.15
4	1.08	0.01	1.76	0.08	2.48	0.36	1.20	<0.01	0.80	dry	2.96	0.53	1.00	0.16	1.44	0.15	0.68	0.16	2.24	0.26	1.52	0.16
5	1.35	0.06	2.20	0.06	3.10	0.29	1.50	0.01	1.00	0.02	3.70	0.58	1.25	0.14	1.80	0.09	0.85	0.20	2.80	0.31	1.90	0.06
6	1.62	0.01	2.64	0.01	3.72	0.23	1.80	<0.01	1.20	0.02	4.44	0.64	1.50	0.14	2.16	0.25	1.02	0.20	3.36	0.33	2.28	0.03
7	1.89	0.02	3.08	0.01	4.34	0.24	2.10	<0.01	1.40	0.01	5.18	0.62	1.75	0.11	2.52	0.19	1.19	0.13	3.92	0.21	2.66	0.08
8	2.16	0.02	3.52	0.01	4.96	0.12	2.40	0.02	1.60	0.01	5.92	0.44	2.00	0.08	2.88	0.20	1.36	0.14	4.48	0.11	3.04	0.08
9	2.43	0.01	3.96	<0.01	5.58	0.08	2.70	0.01	1.80	<0.01	6.66	0.25	2.25	0.02	3.24	0.10	1.53	0.11	5.04	0.11	3.42	0.05
Right Bank	2.75	0	4.40	0	6.25	0	3.00	0	2.00	0	7.40	0	2.50	0	3.60	0	1.70	0	5.60	0	3.85	0
Feature Type (riffle, run, or pool)	RIFFLE		RIFFLE		POOL		RIFFLE		RIFFLE		POOL		RUN		RUN		RUN		POOL		POOL	

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (lastpth). This width is the wetted width
GPS location corresponds to Transect 01 and Transect 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.

RWC 10-23-07

Signed: Rebecca Martin Date: 10/11/07

WBID # 1685

Site # 2

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 10/11/07 0930	Site Location Description (e.g., road crossing): Camp St.
Personnel (Data Collectors): RM / TF	
Current Weather Conditions: clear	Facility Name: Meadow Lake Farm Sundevis
Weather Conditions for Past 10 days: Clear	Permit Number: mo 0110094
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): 4268051	Northing (UTM Y): 0674658	Horizontal Accuracy: (EPE / FOM / PDOP)	61 ~~Meters~~ ft
Site 11	Easting (UTM X): 4268144	Northing (UTM Y): 0674792	Horizontal Accuracy: (EPE / FOM / PDOP)	49 ~~Meters~~ ft

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
100-32	Pipeline Upstream Site 2	100-33	DN Stream Site 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 # 1685
Site # 2

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:
city streets, mowed grassy area where Bridge used to be @ Transect # 1

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%.)

15 % Cobble	25 % Gravel	30 % Sand	% Silt	10 % Mud/Clay	20 % Bedrock

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

Lots of Benthic Algae on bedrock/cobble/gravel bars

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 # 1685

Site # 2

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.)

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

Surveyor's Signature: Anne Mart Date of Survey: 10/10/07

Organization: AE Solutions Position: Env. Specialist

RMC 10-23-07

Recreational Use Attainability Analysis Field Survey Sheet

Waterbody ID: 1685 Site #: 1685-02 (WBID_Site#)

Estimated Channel Incision: 2.0 (m) (height between low bank width and water)

GPS Location (taken at transect 1):
UTM X: 4268051 UTM Y: 674658
Horizontal Accuracy Estimate (GPS Data Quality): +/- 61 (feet)

GPS Location (taken at transect 11):
UTM X: 4268144 UTM Y: 674792
Horizontal Accuracy Estimate (GPS Data Quality): +/- 49 (feet)

Average Stream Width: 5.5 (meters) Length of Survey Segment: 150 (meters)
(To determne Length of Reach) (20x average stream width)

Field Staff: R. Martin & J. Foth

Dissolved Oxygen

Date: 10/11/07 Time: 0930

Dissolved Oxygen: 3.82 (mg/L)

Dissolved Oxygen: 37.1 (% sat)

Specific Cond: 365.7 (µS/cm)

Water Temp.: 13.8 (°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	1.17	0.15	0.29	0.11	0.51	0.08	0.58	0.24	0.60	0.15	0.41	0.05	0.44	0.01	0.44	0.02	0.80	0.21	0.68	0.10	0.21	0.01
2	2.34	0.21	0.58	0.19	1.02	0.10	1.16	0.44	1.20	0.89	0.82	0.12	0.88	0.02	0.88	0.05	1.60	0.24	1.36	0.25	0.42	0.01
3	3.51	0.20	0.87	0.30	1.53	0.10	1.74	0.62	1.80	0.92	1.23	0.20	1.32	0.01	1.32	0.06	2.40	0.24	2.04	0.33	0.63	0.01
4	4.68	0.17	1.16	0.36	2.04	0.14	2.32	0.66	2.40	0.76	1.64	0.12	1.76	0.03	1.76	0.08	3.20	0.19	2.72	0.40	0.84	0.02
5	5.85	0.20	1.45	0.31	2.55	0.19	2.90	0.70	3.00	1.00	2.05	0.18	2.20	0.01	2.20	0.02	4.00	0.19	3.40	0.43	1.05	0.01
6	7.02	0.25	1.74	0.20	3.06	0.22	3.48	0.76	3.60	0.80	2.46	0.16	2.64	dry	2.64	0.01	4.80	0.23	4.08	0.44	1.26	0.03
7	8.19	0.08	2.03	0.19	3.57	0.23	4.06	0.50	4.20	0.64	2.87	0.09	3.08	dry	3.08	<0.01	5.60	0.38	4.76	0.41	1.47	<0.01
8	9.36	0.12	2.32	0.12	4.08	0.20	4.64	0.30	4.80	0.50	3.28	0.10	3.52	<0.01	3.52	<0.01	6.40	0.20	5.44	0.23	1.68	0.01
9	10.53	0.05	2.61	0.04	4.59	0.13	5.22	0.16	5.40	0.2	3.69	0.08	3.96	<0.01	3.96	0.01	7.20	0.10	6.12	0.20	1.89	0.01
Right Bank	11.70	0	2.90	0	5.15	0	5.85	0	6.00	0	4.10	0	4.40	0	4.40	0	8.00	0	6.85	0	2.10	0
Feature Type (riffle, run, or pool)	POOL		RUN		POOL		POOL		POOL		RUN		RIFFLE		RIFFLE		POOL		POOL		RIFFLE	

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0depth). This width is the wetted width
GPS location corresponds to Transect 01 and Transect 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.

RWC 10-23-07

Signed: Rebecca Martin Date: 10/11/07

WBID # 1685

Site # 3

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 10/11/07 1015	Site Location Description (e.g., road crossing): room dnstream of site 2
Personnel (Data Collectors): RM / JF	
Current Weather Conditions: Clear	Facility Name: Meadow Lake Farm Subdivis.
Weather Conditions for Past 10 days: Clear	Permit Number: MO Ø 11 ØØ 94
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): 4268064	Northing (UTM Y): 0674931	Horizontal Accuracy: (EPE / FOM / PDOP)	18	~~Meters~~ ft
Site 11	Easting (UTM X): 4267977	Northing (UTM Y): 0675080	Horizontal Accuracy: (EPE / FOM / PDOP)	21	~~Meters~~ ft

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
100-34	DN Stream Site 3	100-35	UP Streams		
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
100-31	Storm pipe - Residential DN Stream T-1 Site 3				
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 # 1685
Site # 3

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: City residential homes				

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%.)

15 % Cobble	25 % Gravel	30 % Sand	% Silt	10 % Mud/Clay	20 % Bedrock

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

Lots of Benthic 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	☒ 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 # 1665

Site # 3

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.)

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: 10/4/07

Organization: AE Solutions Position: Env Specialist

RWC 10-23-07

Recreational Use Attainability Analysis Field Survey Sheet

Waterbody ID: 1685 Site #: 1685_03 (WBID_Site#)

Estimated Channel Incision: 3.5 (m) (height between low bank width and water)

GPS Location (taken at transect 1):
UTM X: 4269064 UTM Y: 674931
Horizontal Accuracy Estimate (GPS Data Quality): +/- 18 (feet)

GPS Location (taken at transect 11):
UTM X: 4267977 UTM Y: 675080
Horizontal Accuracy Estimate (GPS Data Quality): +/- 21 (feet)

Average Stream Width: 5.5 (meters) (To determne Length of Reach)

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

Field Staff: R. Martin ; J. Fox

Dissolved Oxygen

Date: 10/11/07 Time: 1015

Dissolved Oxygen: 7.16 (mg/L)

Dissolved Oxygen: 66.8 (% sat)

Specific Cond: 370.2 (µS/cm)

Water Temp.: 12.2 (°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	0.38	0.15	0.66	0.17	0.64	0.10	0.35	0.03	0.56	0.02	0.49	0.04	0.63	0.14	0.765	0.25	0.55	0.06	0.55	0.31	0.52	0.04
2	0.76	0.25	1.32	0.26	1.28	0.06	0.70	0.10	1.12	0.06	0.98	0.13	1.26	0.21	1.46	0.30	1.10	0.14	1.10	0.52	1.04	0.03
3	1.14	0.24	1.98	0.28	1.92	0.02	1.05	0.05	1.68	0.09	1.47	0.20	1.89	0.24	2.19	0.29	1.65	0.23	1.65	0.60	1.56	0.05
4	1.52	0.22	2.64	0.28	2.56	0.01	1.40	0.09	2.24	0.11	1.96	0.25	2.52	0.23	2.92	0.27	2.20	0.34	2.20	0.68	2.08	0.10
5	1.90	0.20	3.30	0.30	3.20	0.08	1.75	0.10	2.80	0.12	2.45	0.27	3.15	0.20	3.65	0.24	2.75	0.44	2.75	0.75	2.60	0.14
6	2.28	0.16	3.96	0.29	3.84	0.09	2.10	0.07	3.36	0.08	2.94	0.26	3.78	0.21	4.38	0.18	3.30	0.70	3.30	0.95	3.12	0.06
7	2.66	0.11	4.62	0.27	4.48	0.09	2.45	0.02	3.92	0.05	3.43	0.33	4.41	0.20	5.11	0.20	3.85	0.82	3.85	0.90	3.64	0.17
8	3.04	0.08	5.28	0.30	5.12	0.07	2.80	0.01	4.48	0.03	3.92	0.34	5.04	0.18	5.84	0.18	4.40	0.70	4.40	0.85	4.16	0.20
9	3.42	0.05	5.94	0.20	5.76	0.05	3.15	<0.01	5.04	0.02	4.41	0.28	5.67	0.17	6.57	0.17	4.95	0.45	4.95	0.30	4.68	0.18
Right Bank	3.80	0	6.60	0	6.40	0	3.50	0	5.65	0	4.95	0	6.30	0	7.30	0	5.50	0	4.50	0	5.25	0
Feature Type (riffle, run, or pool)	RUN		POOL		RUN		POOL		RUN		RUN		POOL		POOL		POOL		POOL		RUN	

Notes:
- Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0depth). This width is the wetted width
- GPS location corresponds to Transect 01 and Transect 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.

AWC 10-23-07

Signed: [signature] Date: 10/11/07

WBID # 1685
SITE # 01
TRANSECT # 01
DN STREAM

WBID # 1685
SITE # 02
TRANSECT # 01
UP STREAM
-PIPE LINE

WBID # 1685
SITE # 01
TRANSECT # 01
UP STREAM

WBID # 1685
SITE # 01
TRANSECT # 10
FIRE HOSE

NBIO # 1685
SITE # 03
TRANSECT # 01
- DN STREAM
- DRAIN PIPE

NBIO # 1685
SITE # 02
TRANSECT # 01
DN STREAM

NBIO # 1685
SITE # 03
TRANSECT # 01
UP STREAM