



Missouri
Department of
Natural Resources

Use Attainability Analysis

for

WBID 1690 Tributary to Browns Branch

Submitted by
Pickett Ray and Silver

To
Missouri Department of Natural Resources
Water Protection Program

Date Received: June 5, 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): Browns Branch	
Missouri Waterbody Identification (WBID) Number: 1690 - Tributary to Browns Branch	
8-digit HUC: 10300200	County: Franklin
Upstream Legal Description (from Table H): 43N, 01W, Section 13	
Downstream Legal Description (from Table H): Mouth	
Number of sites evaluated 3	
List all sites numbers, listed consequently upstream to downstream: 1690-1, 1690-2, 1690-3	

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

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

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)			
Upstream Coordinates: UTM X Y		Downstream Coordinates: UTM X Y	
HORIZONTAL COLLECTION METHOD (Indicate the method used to determine the locational data.)			
Global Positioning System (GPS)		Interpolation	
Static Mode		Topographic Map or DRG	
Dynamic Mode (Kinematic)		Aerial Photograph or DOQQ	
Precise Positioning Service		Satellite Imagery	
Signal Averaging		Interpolation Other	
Real Time Differential Processing			
HORIZONTAL ACCURACY ESTIMATE			
GPS Data Quality		Interpolation Data Quality	
FOM	± _____ Meters	Source Map Scale: 1:24,000 1:100,000 Other _____	
EPE	± _____ Feet or ± _____ Meters		
PDOP		± _____ Feet or ± _____ Meters	

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

Discharger Facility Name(s): TBJ Sewer System, Inc.
Discharger Permit Number(s): MO 0122653

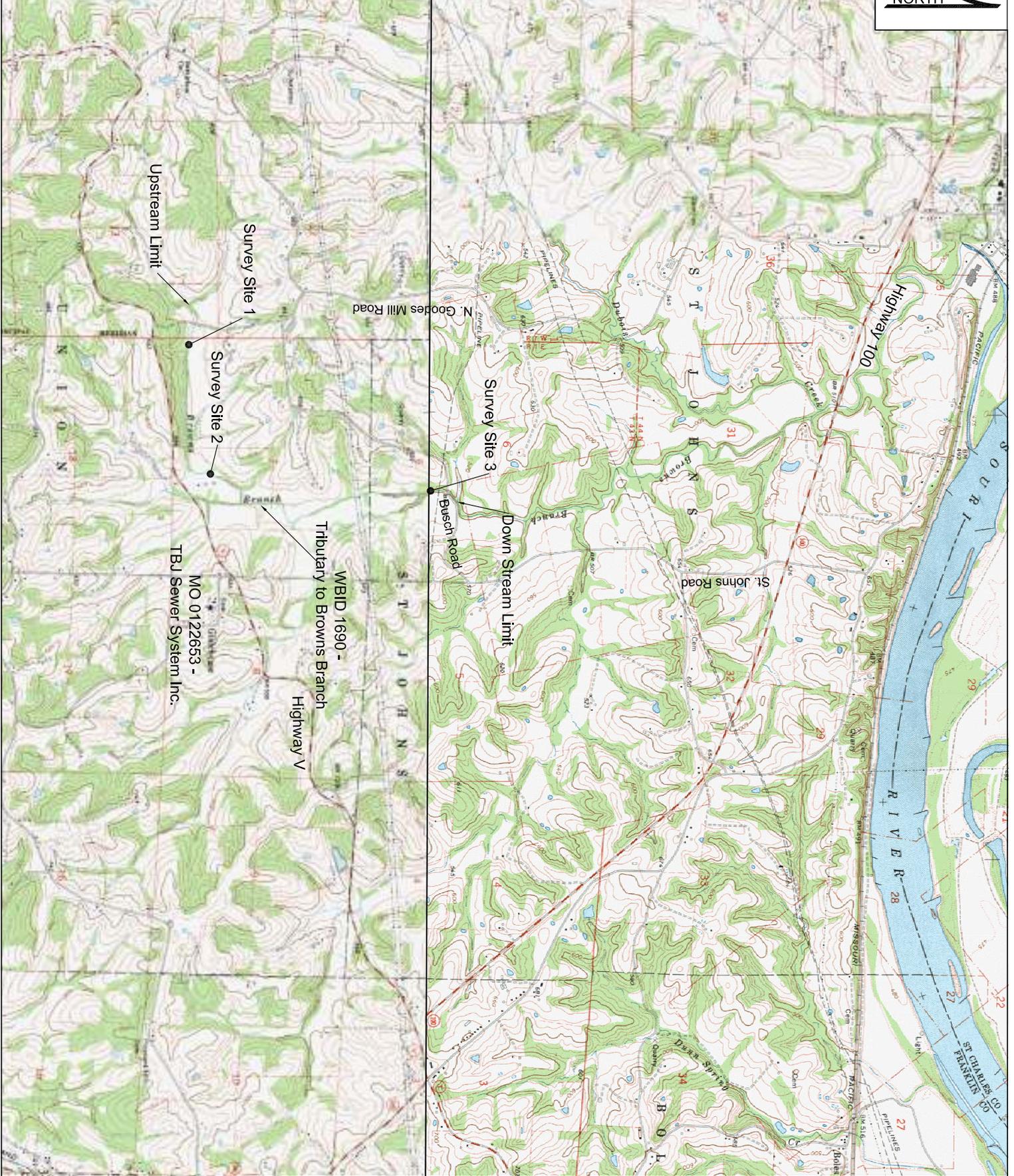
IV. UAA Surveyor (please print legibly)

Name of Surveyor Robin Reymond	Telephone Number: 636-397-1211
Organization/Employer: Pickett, Ray & Silver, Inc.	
Position: Field Team Leader	

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

Signed: Robin ReymondDate: 5/8/07

NORTH



PICKETT RAY & SILVER

Civil Engineers Land Surveyors Natural Resources

Address: 333 Mid Rivers Mall Drive
 St. Peters, Missouri 63376

Phone: (636) 397-1211
 Fax: (636) 397-1104
 Website: www.prs3.com

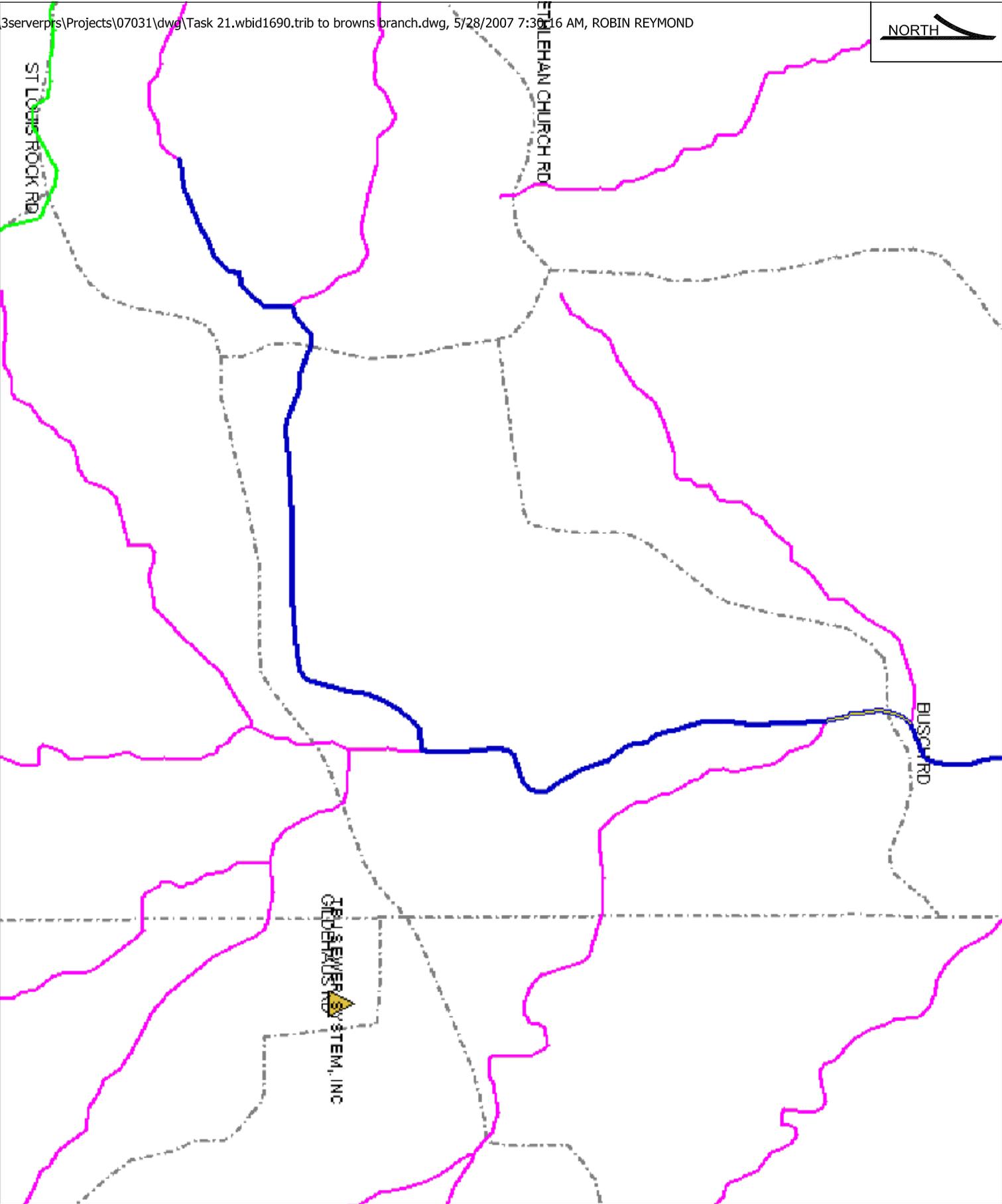
WBID #: 1690
 Name: Tributary to Browns Branch
 County: Franklin
 USGS Location Map



GRAPHIC SCALE
 Not to Scale

PRS Job Number: 07031.MODN.00E
 Drawn By: RLR Date: 05-24-07
 Checked By: JCV Date: 05-24-07

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WBID #: 1690
 Name: Tributary to Browns Branch
 County: Franklin
 GIS Map


GRAPHIC SCALE
 Not to Scale

PRS Job Number: 07031.MODN.00E
 Drawn By: RLR Date: 05-24-07
 Checked By: JCV Date: 05-24-07

WBID# 1690
 Site# 1

Field Data Sheets for Recreational Use Stream Surveys
Data Sheet B - Site Characterization
 (must be completed for each site)

Date & Time: 5/8/07 - 8:30 am	Site Location Description (e.g., road crossing):
Personnel (Data Collectors): PRS - RR/MC	Just downstream of Goodes Mill Road bridge
Current Weather Conditions: sunny 70°F	Facility Name: TBJ Sewer System, Inc.
Weather Conditions for Past 10 days: rain/sun	Permit Number: MO 0122653

Drought Conditions?: No drought ; Phase I ; Phase II ; Phase III ; Phase IV ; Unknown

Site Locations:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)			
Site GPS Coordinates: UTM X: 677472m		Y: 4261318m	
HORIZONTAL COLLECTION METHOD (Indicate the method used to determine the locational data.)			
Global Positioning System (GPS)		Interpolation	
Static Mode		Topographic Map or DRG	x
Dynamic Mode (Kinematic)		Aerial Photograph or DOQQ	
Precise Positioning Service		Satellite Imagery	
Signal Averaging		Interpolation Other	Real Time Differential Correction with
Real Time Differential Processing			Post-Processing
HORIZONTAL ACCURACY ESTIMATE			
GPS Data Quality		Interpolation Data Quality	
FOM	± _____ Meters	Source Map Scale: 1:24,000 1:100,000 Other _____ ± _____ Feet or ± 10 _____ Meters	
EPE	± _____ Feet or ± _____ Meters		
PDOP			

Photos:

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
See Attached Photos					

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

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (Include number of individuals recreating, photo-documentation of evidence of recreational uses, etc. Use *Data Sheet D- Recreational Use Interview* when conducting interviews.)

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

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Comments:

Indications of Human Use*: (attach photos)

<input type="checkbox"/> Roads	<input type="checkbox"/> Rope swings	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle	<input type="checkbox"/> Other:	

Comments:

* Page Two – Data Sheet B for WBID # 1690-1 :

Stream Morphology:

Upstream View's Physical Dimensions: Is there any water present at this view? Yes No
 If so, is there an obvious current? Yes No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN					
POOL					

Downstream View's Physical Dimensions: Is there any water present at this view? Yes No

Approximate percentage of channel features for entire segment site If so, is there an obvious current? Yes No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE 30%					
RUN 60%					
POOL 10%					

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

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

Moss and algae on rock substrate. 15% woody vegetation on gravel bars.

Water Characteristics*: (Mark all that apply.)

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

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

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

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

Surveyor's Signature: Robin Reymond Date of Survey: 5/8/07

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

Recreational Use Attainability Analysis Field Survey Sheet

Waterbody ID: <u>1690</u> Site #: <u>1</u> Weather Conditions: <u>sunny 70°</u> GPS Location: _____ UTM X: <u>677472m</u> UTM Y: <u>4261318m</u> Horizontal Accuracy Estimate (GPS Data Quality): <u>+/- 10meters</u> (feet) PDOP: _____ Average Stream Width: <u>3.8</u> (meters) Length of Survey Segment: <u>150</u> (meters) Field Staff: <u>PRS - RR/MC</u>	<b style="text-align: center;">Dissolved Oxygen Dissolved Oxygen: <u>7.82</u> (mg/L) Dissolved Oxygen: _____ (% sat) Specific Cond: _____ (µS/cm) Water Temperature: <u>17.1</u> (°C)
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Transect Cross-Section																						
01		02		03		04		05		06		07		08		09		10		11		
Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	
1	0.3	.11	0	.19	0.75	.10	0	.10	0	.11	2.5	.16	0.5	.10	0.5	.11	0.5	.16	0	.01	0.5	.12
2	.45	.10	.1	.19	0.85	.10	0.5	.16	0.5	.14	2.7	.16	.75	.10	.75	.11	0.8	.20	0.2	.01	0.7	.20
3	.60	.11	.2	.18	0.95	.10	1.0	.21	1.0	.18	2.9	.16	1.0	.10	1.0	.12	1.1	.18	0.4	.01	0.9	.20
4	.75	.11	.3	.17	1.05	.11	1.5	.17	1.5	.18	3.1	.18	1.25	.10	1.25	.20	1.4	.16	0.5	.01	1.1	.20
5	.90	.11	.4	.17	1.15	.12	2.0	.04	2.0	.16	3.3	.18	1.5	.10	1.50	.16	1.7	.16	0.6	.02	1.3	.17
6	1.05	.12	.5	.15	1.25	.13	2.5	.04	2.5	.14	3.5	.18	1.75	.10	1.75	.18	2.0	.19	0.7	.03	1.5	.19
7	1.2	.12	.6	.12	1.35	.13	3.0	.04	3.0	.13	3.7	.20	2.0	.10	2.0	.20	2.3	.23	0.8	.10	1.7	.18
8	1.35	.12	.7	.12	1.45	.14	3.5	.04	3.5	.13	3.9	.20	2.25	.10	2.25	.19	2.6	.22	0.9	.10	1.9	.17
9	1.50	.11	.8	.11	1.55	.14	4.0	.04	4.0	.15	4.1	.21	2.5	.10	2.5	.20	2.9	.20	1.0	.03	2.1	.04
10	1.65	.11	.9	.14	1.65	.14	4.5	.10	4.5	.10	4.3	.22	2.75	.10	2.75	.18	3.2	.10	1.2	.01	2.3	.10
11	1.8	.10	1.0	.12	1.75	.14	5.0	.13	5.0	.10	4.5	.22	3	.10	3	.10	3.5	.10			2.5	.10
Width/Median Depth	2.4	0.11	4.5	0.15	5.0	0.13	5.0	0.10	5	0.13	5.0	0.18	4	0.10	3	0.18	3.5	0.18	1.2	<0.1	3	0.17
Feature Type (riffle, run, or pool)	Run		Run		Run		Riffle		Run		Run		Run		Pool		Pool		Riffle		Riffle	

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

Signed: Robin Reymond Date: 5/8/07

WBID# 1690
 Site# 2

Field Data Sheets for Recreational Use Stream Surveys
Data Sheet B - Site Characterization
 (must be completed for each site)

Date & Time: 5/8/07 9:30 a.m.	Site Location Description (e.g., road crossing):
Personnel (Data Collectors): PRS - RR/MC	Approximately 750m downstream of North Goodes Mill Road bridge
Current Weather Conditions: sunny 72°F	Facility Name: TBJ Sewer System, Inc.
Weather Conditions for Past 10 days: rain/sun	Permit Number: MO 0122653
Drought Conditions?: No drought <input checked="" type="checkbox"/> ; Phase I <input type="checkbox"/> ; Phase II <input type="checkbox"/> ; Phase III <input type="checkbox"/> ; Phase IV <input type="checkbox"/> ; Unknown <input type="checkbox"/>	

Site Locations:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)			
Site GPS Coordinates: UTM X: 678738m		Y: 4261744m	
HORIZONTAL COLLECTION METHOD (Indicate the method used to determine the locational data.)			
Global Positioning System (GPS)		Interpolation	
Static Mode		Topographic Map or DRG	x
Dynamic Mode (Kinematic)		Aerial Photograph or DOQQ	
Precise Positioning Service		Satellite Imagery	
Signal Averaging		Interpolation Other	Real Time Differential Correction with
Real Time Differential Processing		Post-Processing	
HORIZONTAL ACCURACY ESTIMATE			
GPS Data Quality		Interpolation Data Quality	
FOM	± _____ Meters	Source Map Scale: 1:24,000 1:100,000 Other _____ ± _____ Feet or ± 10 _____ Meters	
EPE	± _____ Feet or ± _____ Meters		
PDOP			

Photos:

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
See Attached Photos					

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

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (Include number of individuals recreating, photo-documentation of evidence of recreational uses, etc. Use <i>Data Sheet D- Recreational Use Interview</i> when conducting interviews.)				

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

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Comments:				

Indications of Human Use*: (attach photos)

<input type="checkbox"/> Roads	<input type="checkbox"/> Rope swings	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle	<input type="checkbox"/> Other:	
Comments:					

* Page Two – Data Sheet B for WBID # 1690-2 :

Stream Morphology:

Upstream View’s Physical Dimensions: Is there any water present at this view? Yes No
 If so, is there an obvious current? Yes No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN					
POOL					

Downstream View’s Physical Dimensions: Is there any water present at this view? Yes No

Approximate percentage of channel features for entire segment site If so, is there an obvious current? Yes No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE 40%					
RUN 40%					
POOL 20%					

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

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

Moss and algae growth on rock substrate. 10% vegetation on gravel bars.

Water Characteristics*: (Mark all that apply.)

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

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

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

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

Surveyor’s Signature: Robin Reymond Date of Survey: 5/8/07

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

Recreational Use Attainability Analysis Field Survey Sheet

Waterbody ID: <u>1690</u> Site #: <u>2</u> Weather Conditions: <u>Sunny 75°</u> GPS Location: <u>678738m</u> UTM Y: <u>4261744m</u> UTM X: <u>678738m</u> UTM Y: <u>4261744m</u> Horizontal Accuracy Estimate (GPS Data Quality): <u>+/- 10meters</u> (feet) PDOP: _____ Average Stream Width: <u>3.7</u> (meters) Length of Survey Segment: <u>150</u> (meters) Field Staff: <u>PRS - RR/MC</u>	<b style="text-align: center;">Dissolved Oxygen Dissolved Oxygen: <u>9.56</u> (mg/L) Dissolved Oxygen: _____ (% sat) Specific Cond: _____ (µS/cm) Water Temperature: <u>17.7</u> (°C)
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Transect Cross-Section																						
01		02		03		04		05		06		07		08		09		10		11		
Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	
1	0.2	.10	0	.20	0.5	.10	0	.10	0	.03	0	.20	0	.10	0	.20	0.5	.23	0	.13	0.5	.20
2	0.4	.15	0.5	.45	0.75	.20	.3	.17	0.2	.08	0.65	.20	.35	.10	0.4	.23	0.7	.23	0.1	.13	1.0	.20
3	0.6	.16	1.0	.31	1.0	.30	.6	.28	0.4	.05	1.3	.23	.70	.20	0.8	.23	0.9	.27	0.2	.13	1.5	.40
4	0.8	.22	1.5	.36	1.25	.21	.9	.33	0.6	.08	1.95	.20	1.05	.20	1.2	.24	1.1	.30	0.3	.13	2.0	.45
5	1.0	.23	2.0	.36	1.5	.30	1.2	.41	0.8	.05	2.6	.03	1.4	.24	1.6	.17	1.3	.21	0.4	.10	2.5	.58
6	1.2	.16	2.5	.36	1.75	.25	1.5	.38	1.0	.04	3.25	.00	1.75	.25	2.0	.07	1.5	.20	0.5	.10	3.0	.82
7	1.3	.20	3.0	.36	2.0	.27	1.8	.25	1.2	.04	3.9	.00	2.05	.20	2.4	.05	1.7	.18	0.6	.10	3.5	.79
8	1.4	.21	3.5	.36	2.25	.24	2.1	.20	1.4	.03	4.55	.02	2.4	.13	2.8	.09	1.9	.18	0.7	.10	3.75	.80
9	1.6	.17	4.0	.30	2.5	.19	2.4	.20	1.6	.01	5.2	.02	2.75	.03	3.2	.11	2.1	.13	0.8	.10	4.0	.66
10	1.7	.17	4.5	.25	2.75	.13	2.7	.18	1.8	.01	5.85	.10	3.05	.10	3.6	.10	2.3	.10	0.9	.10	4.25	.31
11	1.8	.13	5.0	.19	3	.10	3.0	.15			6.5	.20	3.5	.10	4.0	.10	2.5	.10	1	.10	4.5	.20
Width/Median Depth	1.8	0.17	5.0	0.36	3	0.21	3.6	0.20	1.8	<0.10	6.5	<0.10	4.0	0.13	4.5	0.11	3	0.20	3	0.10	4.5	0.45
Feature Type (riffle, run, or pool)	Run		Pool		Run		Run		Riffle		Riffle		Riffle		Run		Riffle		Riffle		Pool	

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

Signed: Robin Reymond Date: 5/8/07

WBID# 1690
 Site# 3

Field Data Sheets for Recreational Use Stream Surveys
Data Sheet B - Site Characterization
 (must be completed for each site)

Date & Time: 5/8/07 11:00 a.m.	Site Location Description (e.g., road crossing):
Personnel (Data Collectors): PRS - RR/MC	Downstream of Busch Rd. bridge
Current Weather Conditions: sunny 76°F	Facility Name: TBJ Sewer System, Inc.
Weather Conditions for Past 10 days: rain/sun	Permit Number: MO 0122653
Drought Conditions?: No drought <input checked="" type="checkbox"/> ; Phase I <input type="checkbox"/> ; Phase II <input type="checkbox"/> ; Phase III <input type="checkbox"/> ; Phase IV <input type="checkbox"/> ; Unknown <input type="checkbox"/>	

Site Locations:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)			
Site GPS Coordinates: UTM X: 678671m		Y: 4263386m	
HORIZONTAL COLLECTION METHOD (Indicate the method used to determine the locational data.)			
Global Positioning System (GPS)		Interpolation	
Static Mode		Topographic Map or DRG	x
Dynamic Mode (Kinematic)		Aerial Photograph or DOQQ	
Precise Positioning Service		Satellite Imagery	
Signal Averaging		Interpolation Other Real Time Differential Correction with	
Real Time Differential Processing		Post-Processing	
HORIZONTAL ACCURACY ESTIMATE			
GPS Data Quality		Interpolation Data Quality	
FOM	± _____ Meters	Source Map Scale: 1:24,000 1:100,000 Other _____ ± _____ Feet or ± 10 _____ Meters	
EPE	± _____ Feet or ± _____ Meters		
PDOP			

Photos:

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
See Attached Photos					

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

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (Include number of individuals recreating, photo-documentation of evidence of recreational uses, etc. Use <i>Data Sheet D- Recreational Use Interview</i> when conducting interviews.)				

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

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Comments:				

Indications of Human Use*: (attach photos)

<input type="checkbox"/> Roads	<input type="checkbox"/> Rope swings	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle	<input type="checkbox"/> Other:	
Comments:					

* Page Two – Data Sheet B for WBID # 1690-3 :

Stream Morphology:

Upstream View's Physical Dimensions: Is there any water present at this view? Yes No

If so, is there an obvious current? Yes No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN					
POOL					

Downstream View's Physical Dimensions: Is there any water present at this view? Yes No

Approximate percentage of channel features for entire segment site

If so, is there an obvious current? Yes No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE 40%					
RUN 40%					
POOL 20%					

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

30 % Cobble	25 % Gravel	10 % Sand	5 % Silt	10 % Mud/Clay	20 % Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site)

10% woody vegetation on gravel bars moderate algae and moss growth on stream bed.

Water Characteristics*: (Mark all that apply.)

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

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

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

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

Surveyor's Signature: Robin Reymond Date of Survey: 5/8/07

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

Recreational Use Attainability Analysis Field Survey Sheet

Waterbody ID: <u>1690</u> Site #: <u>3</u> Weather Conditions: <u>p. sunny 76°</u> GPS Location: <u>678671m</u> UTM Y: <u>4263386m</u> UTM X: <u>678671m</u> UTM Y: <u>4263386m</u> Horizontal Accuracy Estimate (GPS Data Quality): <u>+/- 10meters</u> (feet) PDOP: _____ Average Stream Width: <u>7.0</u> (meters) Length of Survey Segment: <u>150</u> (meters) Field Staff: <u>PRS - RR/MC</u>	Dissolved Oxygen Dissolved Oxygen: <u>9.23</u> (mg/L) Dissolved Oxygen: _____ (% sat) Specific Cond: _____ (µS/cm) Water Temperature: <u>20.07</u> (°C)
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Transect Cross-Section																						
01		02		03		04		05		06		07		08		09		10		11		
Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	
1	0.5	.15	>1	0.3	.10	0	.20	>1	0	.11	0	.10	0	.29	0	.32	>1	>1	>1	>1		
2	1.0	.15	>1	0.7	.14	0.5	.20	>1	.35	.11	1.1	.18	.35	.32	1	.55	>1	>1	>1	>1		
3	1.5	.25	>1	1.1	.14	1.0	.20	>1	.70	.11	2.2	.22	.70	.38	2	.50	>1	>1	>1	>1		
4	2.0	.32	>1	1.5	.14	1.5	.13	>1	1.05	.12	3.3	.03	1.05	.38	3	.41	>1	>1	>1	>1		
5	2.5	.36	>1	1.9	.11	2.0	.10	>1	1.40	.11	4.4	.04	1.40	.39	4	.41	>1	>1	>1	>1		
6	3.0	.34	>1	2.3	.11	2.5	.10	>1	1.75	.11	5.5	.04	1.75	.39	5	.35	>1	>1	>1	>1		
7	3.5	.38	>1	2.7	.13	3.0	.22	>1	2.10	.11	6.6	.04	2.10	.40	6	.29	>1	>1	>1	>1		
8	4.0	.50	>1	3.1	.14	3.5	.20	>1	2.45	.12	7.7	.10	2.45	.43	7	.20	>1	>1	>1	>1		
9	4.5	.54	>1	3.7	.20	4.0	.18	>1	2.8	.14	8.8	.10	2.8	.30	8	.18	>1	>1	>1	>1		
10	5.0	.33	>1	4.0	.22	4.5	.22	>1	3.15	.12	9.9	.01	3.15	.18	9	.11	>1	>1	>1	>1		
11	5.5	.14	>1	4.3	.23	5.0	.10	>1	3.5	.12	11	.03	3.5	.15	9.5	.10	>1	>1	>1	>1		
Width/Median Depth	5.5	0.33	7.6	-	4.3	0.14	5.0	0.20	9	-	4.3	0.11	11	<0.10	4	0.38	9.5	0.32	9.5	-	7.6	-
Feature Type (riffle, run, or pool)	Run		Pool		Run		Riffle		Pool		Riffle		Riffle		Run		Run		Run		Run	

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

Signed: Robin Reymond Date: 5/8/07

WBID# 1690



Site# 1 Photo ID# Transect 1, Upstream



Site# 1 Photo ID# Transect 1, Downstream



Site# 1 Photo ID# Transect 8, Downstream



Photo ID# Residential discharge pipe

WBID# 1690



Site# 3 Photo ID# Transect 1, Upstream



Site#3 Photo ID# Transect 1, Downstream



Site# 3 Photo ID# Transect 5, Upstream



Site# 3 Photo ID# Transect 5, Downstream