Missouri
Department of
Natural Resources

Use Attainability Analysis

for

WBID 1295 Panther Creek

Submitted by
BWR

to
Missouri Department of Natural Resources
Water Protection Program

Date received: June 29, 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):	Panther Creek
Missouri Water Body Identification (WBID) Number:	1295
8-digit HUC: 10290105	County: Bates
Upstream Legal Description (from Table H):	14, 39N, 29W
Downstream Legal Description(from Table H):	Mouth
Number of sites evaluated	6
List all sites numbers, listed consequently upstream to downstream: 1, 6, 2, 3, 4, 5	

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

II. Subegmentation (fill this section out only in cases where subesgmentation 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)

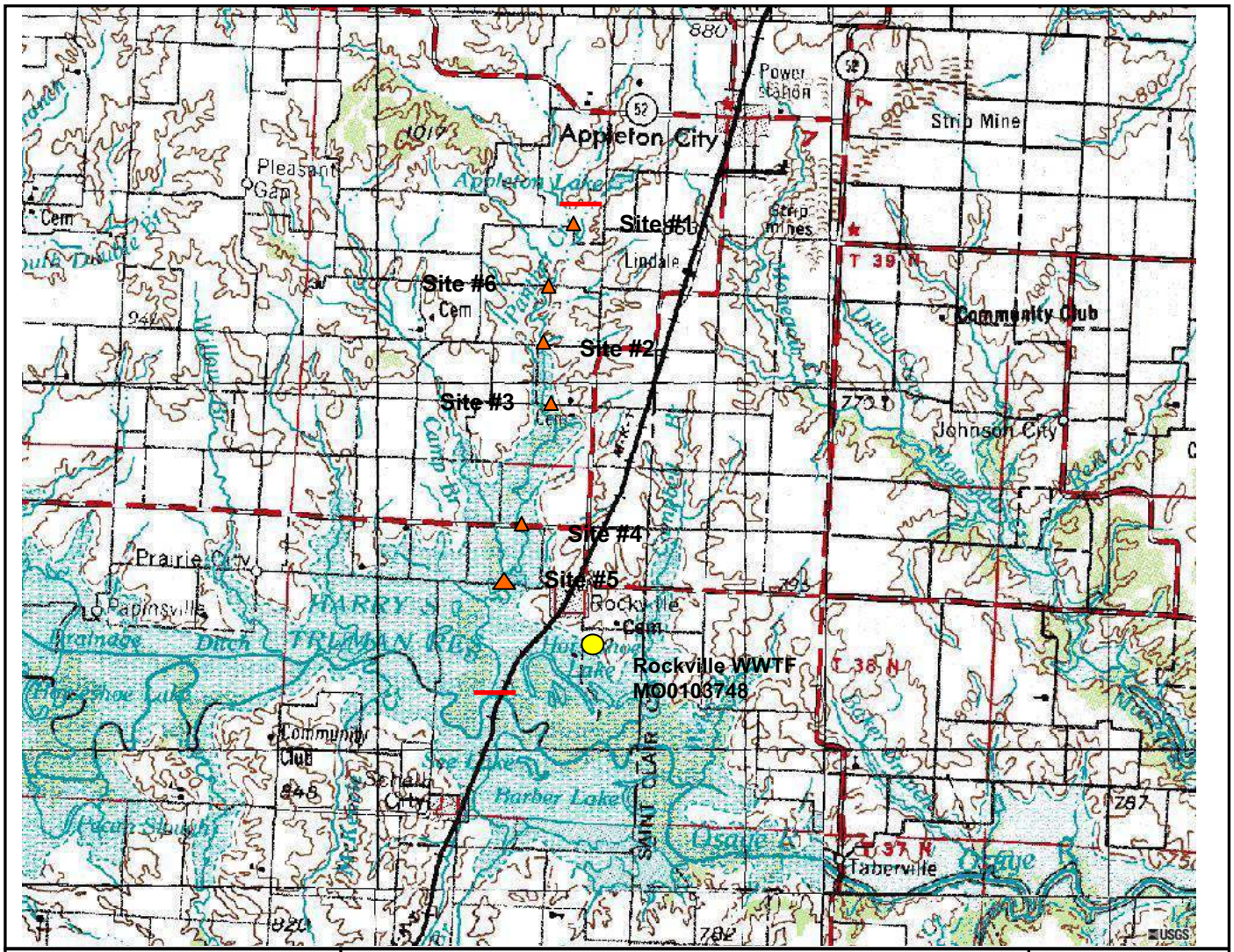
Discharger Facility Name(s):	Rockville WWTP
Discharger Permit Number(s):	MO0103748

IV. UAA Surveyor (please print legibly)

Name of Surveyor Alex Bartlett	Telephone Number: 816.363.2696
Organization/Employer: BWR Corporation	
Position: Environmental Scientist	

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

Signed: _____ **Date:** 6/26/07



BWR
Right in the Center

Panther Creek
WBID #1295

N

Scale:

WBID# 1295

Site# 1

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(must be completed for each site)

Date & Time: 6/6/07 0745	Site Location Description (e.g., road crossing): BRIDGE [illegible] @ CR 55833
Personnel (Data Collectors): [illegible]	
Current Weather Conditions: SUNNY ~ 85°F	Facility Name: ROCKVILLE WWTP
Weather Conditions for Past 10 days: FAIR [illegible]	Permit Number: MO0103748

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: 35 [illegible] Y: [illegible]

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	± _____ Feet or ± _____ Meters
PDOP		

Photos:

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
1295-[illegible]	TRAIL [illegible]	1295-[illegible]	[illegible]		

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

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

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

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

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

Comments:

Indications of Human Use*: (attach photos)

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

Comments: CR 55 3836

CHANNEL FEATURE %
RUN: ____ RIFFLE: ____
~~RIFFLE~~
POOL: 20

* **Page Two – Data Sheet B for WBID #** ____

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

If so, is there an obvious current? ☐ Yes ☐ No

Select one of the following channel features:

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

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

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

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

[illegible]

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:

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: [signature] Date of Survey: 6/26/07

Organization: BWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

		Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
TA	1	WETTED WIDTH	<0.1			1 CHANNEL FEATURE:	
	2	7.6	0.1			2 POOL	
	3		0.1			3	
	4	MEASUREMENTS	<0.1			4 DISSOLVED OXYGEN:	
	5	0.33 m	0.1			5	
	6	APART	0.1			6 5.99	ppm
	7		0.1			7	
	8		0.1			8	
	9		0.1			9	
	10		<0.1			10	
						11	
TB	1	WETTED WIDTH	0.1			12 CHANNEL FEATURE:	
	2	7.2	0.2			13 POOL	
	3		0.2			14	
	4	MEASUREMENTS	0.2			15 DISSOLVED OXYGEN:	
	5	0.33 m	0.2			16	
	6	APART	0.2			17 6.74	ppm
	7		<0.1			18	
	8		<0.1			19	
	9		<0.1			20	
	10		<0			21	
						22 CHANNEL FEATURE:	
TC	1	WETTED WIDTH	<0.1			23 POOL	
	2	7.8	0.1			24	
	3		0.2			25 DISSOLVED OXYGEN:	
	4	MEASUREMENTS	0.1			26	
	5	0.33 m	0.1			. 5.25	ppm
	6	APART	0.1			.	
	7		0.1			.	
	8		0.1			n	
	9		0.2				
	10		<0.1				

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [signature] **Date:** 6/26/07

Organization: BWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
D 1	WETTED WIDTH	0.1			1 CHANNEL	FEATURE:
2	6.0	0.4			2 POOL	
3		0.3			3	
4	MEASUREMENTS	0.3			4 DISSOLVED	OXYGEN:
5	0.50 m	0.3			5	
6	APART	0.2			6 6.00	ppm
7		0.2			7	
8		0.2			8	
9		0.1			9	
10		<0.1			10	
					11 CHANNEL	FEATURE:
E 1	WETTED WIDTH	<0.1			12 POOL	
2	5.0	0.2			13	
3		0.3			14 DISSOLVED	OXYGEN:
4	MEASUREMENTS	0.3			15	
5	0.50 m	0.2			16 4.77	ppm
6	APART	0.2			17	
7		0.2			18	
8		0.2			19	
9		0.1			20	
10		<0.1			21	
					22 CHANNEL	FEATURE:
F 1	WETTED WIDTH	<0.1			23 POOL	
2	2.0	<0.1			24	
3		0.1			25	
4	MEASUREMENTS	0.1			26 DISSOLVED	OXYGEN:
5	0.20 m	0.1			.	
6	APART	0.1			. 4.75	ppm
7		0.2			.	
8		0.2			n	
9		0.2				
10		0.1				

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [illegible] **Date:** 6/26/07

Organization: BLWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
G 1	WETTED WIDTH	<0.1			1 CHANNEL FEATURE:	
2	5.0	0.1			2 POOL	
3		0.1			3	
4	MEASUREMENTS	0.1			4 DISSOLVED OXYGEN:	
5	0.50 m	0.1			5	
6	APART	0.1			6 5.27	ppm
7		0.1			7	
8		0.1			8	
9		0.1			9	
10		<0.1			10	
					11	
H 1	WETTED WIDTH	<0.1			12 CHANNEL FEATURE:	
2	6.0	<0.1			13	
3		<0.1			14	
4	MEASUREMENTS	0.1			15 DISSOLVED OXYGEN:	
5	0.60 m	0.1			16	
6	APART	<0.1			17 6.16	ppm
7		<0.1			18	
8		<0.1			19	
9		<0.1			20	
10		<0.1			21	
					22	
I 1	WETTED WIDTH	<0.1			23 CHANNEL FEATURE:	
2	3.0	0.3			24 POOL	
3		0.4			25	
4		0.5			26 DISSOLVED OXYGEN:	
5	MEASUREMENTS	0.4			.	
6	0.50 m	0.2			. 6.21	ppm
7	APART	0.1			.	
8		0.1			n	
9		<0.1				
10		<0.1				

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [signature] **Date:** 6/26/07

Organization: BLWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

1295 #1

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
TJ 1	WETTED WIDTH	0.1			1 CHANNEL FEATURE:	
2	3.4	0.1			2 POOL	
3		0.1			3	
4	MEASUREMENTS	0.1			4 DISSOLVED OXYGEN:	
5	0.34 m	0.1			5	
6	APART	0.2			6 4.85	ppm
7		0.2			7	
8		0.1			8	
9		<0.1			9	
10		<0.1			10	
					11	
K 1	WETTED WIDTH	<0.1			12 CHANNEL FEATURE:	
2	1.2	<0.1			13 RUN	
3		<0.1			14	
4	MEASUREMENTS	<0.1			15 DISSOLVED OXYGEN:	
5	0.12 m	<0.1			16	
6	APART	<0.1			17 3.90	ppm
7		<0.1			18	
8		<0.1			19	
9		<0.1			20	
10		<0.1			21	
					22	
					23	
					24	
					25	
					26	
					.	
					.	
					.	
					n	

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [signature] **Date:** 6/26/07

Organization: BWZ CORP. Position: ENV. SCI.

WBID# 1295
Site# 2

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

Date & Time: 6/26/07 1053	Site Location Description (e.g., road crossing): BRIDGE CROSSING @ SE 5576
Personnel (Data Collectors): [illegible]	
Current Weather Conditions: PARTLY CLOUDY 80°F	Facility Name: ROCKVILLE WWTP
Weather Conditions for Past 10 days: FAIR, CLEAR	Permit Number: MO0103748

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: [illegible] 579 Y: [illegible]

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 DOOQ	
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	± _____ Feet or ± _____ Meters
PDOP		

Photos: BOARD FEATURE "SINK" [illegible] SHOWS [illegible] CHANGE [illegible]

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
1295-9,10	TRAIL [illegible]	1295-7,8	TRAIL B-A		

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

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

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

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

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

Comments:

Indications of Human Use*: (attach photos)

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

Comments: SE 5576

CHANNEL FEATURE %
RUN: 20 RIFFLE: ____
~~RIFFLE~~
POOL: 80

* **Page Two – Data Sheet B for WBID #** 1295 :
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

If so, is there an obvious current? ☐ Yes ☐ No

Select one of the following channel features:

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

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

20 % Cobble	30 % Gravel	10 % Sand	40 % Silt	% Mud/Clay	% Bedrock

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

LIMITED FLOW & [illegible]

Water Characteristics*: (Mark all that apply.)

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

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

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

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

Surveyor's Signature: [signature] Date of Survey: 6/26/07

Organization: BWF CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

1295 FE

		Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
TA	1	WETTED WIDTH	<0.1			1 CHANNEL FEATURE:	
	2	1.7	<0.1			2 POOL	
	3		0.1			3	
	4	MEASUREMENTS	0.2			4 DISSOLVED OXYGEN:	
	5	0.17 m	0.2			5	
	6	APART	0.2			6 3.06	ppm
	7		0.1			7	
	8		0.1			8	
	9		<0.1			9	
	10		<0.1			10	
						11	
TB	1	WETTED WIDTH	0.2			12 CHANNEL FEATURE:	
	2	9.9	0.5			13 POOL	
	3		0.7			14	
	4	MEASUREMENTS	0.9			15 DISSOLVED OXYGEN:	
	5	0.95 m	>1.0			16	
	6	APART	>1.0			17 5.35	ppm
	7		>1.0			18	
	8		>1.0			19	
	9		0.8			20	
	10		0.7			21	
						22 CHANNEL FEATURE:	
TC	1	WETTED WIDTH	<0.1			23 POOL	
	2	4.0	0.1			24	
	3		0.2			25 DISSOLVED OXYGEN:	
	4	MEASUREMENTS	0.4			26	
	5	0.40 m	0.5			.	ppm
	6	APART	0.5			.	
	7		0.4			.	
	8		0.3			n	
	9		0.2				
	10		0.1				

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [signature] **Date:** 6/26/07

Organization: BWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

1245 #2

		Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
D	1	WETTED WIDTH	<0.1			1 CHANNEL	FEATURE:
	2	7.5	0.2			2 POOL	
	3		0.3			3	
	4	MEASUREMENTS	0.4			4 DISSOLVED	OXYGEN:
	5	0.50 m	0.5			5	
	6	APART	0.6			6 6.2	ppm
	7		0.6			7	
	8		0.5			8	
	9		0.4			9	
	10		<0.1			10	
						11 CHANNEL	FEATURE:
E	1	WETTED WIDTH	<0.1			12 POOL	
	2	8.3	0.3			13	
	3		0.3			14 DISSOLVED	OXYGEN:
	4	MEASUREMENTS	0.5			15	
	5	0.25 m	0.6			16 5.9	ppm
	6	APART	[illegible]			17	
	7		[illegible]			18	
	8		0.6			19	
	9		0.6			20	
	10		0.1			21	
						22 CHANNEL	FEATURE:
F	1	WETTED WIDTH	<0.1			23 POOL	
	2	4.5	0.1			24	
	3		0.2			25	
	4	MEASUREMENTS	0.2			26 DISSOLVED	OXYGEN:
	5	0.45 m	0.2			.	
	6	APART	0.3			. 6.20	ppm
	7		0.3			.	
	8		0.2			n	
	9		0.1				
	10		<0.1				

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [signature] **Date:** 6/26/07

Organization: Blue Corp. Position: Env. Sci.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
G 1	WETTED WIDTH	<0.1			1 CHANNEL FEATURE:	
2	4.0	0.1			2 RUN	
3		0.2			3	
4	MEASUREMENTS	0.2			4 DISSOLVED OXYGEN:	
5	0.40 m	0.2			5	
6	APART	0.2			6 5.27	ppm
7		0.2			7	
8		0.3			8	
9		0.1			9	
10		<0.1			10	
					11	
H 1	WETTED WIDTH	<0.1			12 CHANNEL FEATURE:	
2	2.0	0.1			13	
3		0.1			14	
4	MEASUREMENTS	0.1			15 DISSOLVED OXYGEN:	
5	0.20 m	0.2			16	
6	APART	0.2			17 5.20	ppm
7		0.1			18	
8		0.1			19	
9		0.1			20	
10		<0.1			21	
					22	
I 1	WETTED WIDTH	<0.1			23 CHANNEL FEATURE:	
2	5.0	0.1			24 POOL	
3		0.2			25	
4		0.3			26 DISSOLVED OXYGEN:	
5	MEASUREMENTS	0.2			.	
6	0.50 m	0.2			. 5.11	ppm
7	APART	0.2			.	
8		0.2			n	
9		0.1				
10		<0.1				

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [signature] **Date:** 6/26/07

Organization: BWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

1253 5 2

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
TJ 1	WETTED WIDTH	<0.1			1 CHANNEL FEATURE:	
2	6.5	0.1			2 POOL	
3		0.3			3	
4	MEASUREMENTS	0.4			4 DISSOLVED OXYGEN:	
5	0.65 m	0.5			5	
6	APART	0.4			6 4.56	ppm
7		0.3			7	
8		0.3			8	
9		0.2			9	
10		<0.1			10	
					11	
1	WETTED WIDTH	<0.1			12 CHANNEL FEATURE:	
2	5.0	0.2			13 POOL	
3		0.3			14	
K 4	MEASUREMENTS	0.4			15 DISSOLVED OXYGEN:	
5	0.55 m	0.4			16	
6	APART	0.2			17 5.86	ppm
7		0.2			18	
8		0.2			19	
9		0.1			20	
10		<0.1			21	
					22	
					23	
					24	
					25	
					26	
					.	
					.	
					.	
					n	

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [signature] **Date:** 6/26/07

Organization: BWR CORP. Position: ENV. SCI.

WBID# 1295
Site# 3

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

Date & Time: 6/26/07 1200	Site Location Description (e.g., road crossing): BRIDG CROSSING @ CR 5576
Personnel (Data Collectors): BARRETT & CASEY	
Current Weather Conditions: PARTLY CLOUDY ~50°F	Facility Name: ROCKVILLE WWTP
Weather Conditions for Past 10 days: RAIN / SUNNY	Permit Number: MO0103748
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: [illegible] Y: [illegible]

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	± _____ Feet or ± _____ Meters
PDOP		

Photos:

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
1295-11,12	TRAN J-K	1295-13,14	TRAN [illegible]		

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

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

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

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

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

Comments:

Indications of Human Use*: (attach photos)

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

Comments: [illegible]

CHANNEL FEATURE %
RUN: 25 RIFFLE: ____
~~RIFFLE~~
POOL: 75

• Page Two – Data Sheet B for WBID # 1795 : 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

If so, is there an obvious current? ☐ Yes ☐ No

Select one of the following channel features:

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

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

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

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

SOME ALGAL AND MACROPHYTE GROWTH

Water Characteristics*: (Mark all that apply.)

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

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

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

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

Surveyor's Signature: [signature] Date of Survey: 6/26/07

Organization: BWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

		Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
TA	1	WETTED WIDTH	<0.1			1 CHANNEL FEATURE:	
	2	8.0	[illegible]			2 POOL	
	3		[illegible]			3	
	4	MEASUREMENTS	[illegible]			4 DISSOLVED	OXYGEN:
	5	0.50 m	[illegible]			5	
	6	APART	[illegible]			6 [illegible]	ppm
	7		[illegible]			7	
	8		[illegible]			8	
	9		[illegible]			9	
	10		<[illegible]			10	
						11	
TB	1	WETTED WIDTH	<0.1			12 CHANNEL	FEATURE:
	2	4.5	[illegible]			13 POOL	
	3		[illegible]			14	
	4	MEASUREMENTS	[illegible]			15 DISSOLVED	OXYGEN:
	5	0.45 m	[illegible]			16	
	6	APART	[illegible]			17 [illegible]	ppm
	7		[illegible]			18	
	8		<0.1			19	
	9		<[illegible]			20	
	10		<[illegible]			21	
						22 CHANNEL	FEATURE:
TC	1	WETTED WIDTH	<0.1			23 POOL	
	2	6.0	0.1			24	
	3		0.2			25 DISSOLVED	OXYGEN:
	4	MEASUREMENTS	[illegible]			26	
	5	0.60 m	[illegible]			. 4.95	ppm
	6	APART	[illegible]			.	
	7		[illegible]			.	
	8		[illegible]			n	
	9		[illegible]				
	10		<[illegible]				

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [illegible] **Date:** 6/26/07

Organization: BLR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
1	WETTED WIDTH	<0.1			1 CHANNEL	FEATURE:
2	9.5	0.4			2 POOL	
3		0.6			3	
4	MEASUREMENTS	0.7			4 DISSOLVED	OXYGEN:
5	0.95 m	0.8			5	
6	APART	[illegible]			6 5.07	ppm
7		0.8			7	
8		[illegible]			8	
9		[illegible]			9	
10		<0.1			10	
					11 CHANNEL	FEATURE:
1	WETTED WIDTH	<0.1			12 POOL	
2	3.0	<0.1			13	
3		0.1			14 DISSOLVED	OXYGEN:
4	MEASUREMENTS	0.1			15	
5	0.30 m	0.1			16 6.49	ppm
6	APART	0.1			17	
7		0.1			18	
8		0.1			19	
9		<0.1			20	
10		<0.1			21	
					22 CHANNEL	FEATURE:
1	WETTED WIDTH	<0.1			23 POOL	
2	6.5	0.2			24	
3		0.3			25	
4	MEASUREMENTS	0.4			26 DISSOLVED	OXYGEN:
5	0.62 m	0.3			.	
6	APART	0.3			. 5.47	ppm
7		0.3			.	
8		0.2			n	
9		0.1				
10		<0.1				

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [signature] **Date:** 6/26/07

Organization: BWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

1795 - 3

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
G 1	WETTED WIDTH	<0.1			1 CHANNEL FEATURE:	
2	2.4	0.1			2 RUN	
3		0.1			3	
4	MEASUREMENTS	0.1			4 DISSOLVED OXYGEN:	
5	0.44 m	0.1			5	
6	APART	<0.1			6 ESTIMATE	ppm
7	0.24	<0.1			7 5.71	
8		<0.1			8	
9		<0.1			9	
10		<0.1			10	
					11	
H 1	WETTED WIDTH	<0.1			12 CHANNEL FEATURE:	
2	7.5	<0.1			13 POOL	
3		<0.1			14	
4	MEASUREMENTS	0.1			15 DISSOLVED OXYGEN:	
5	0.75 m	0.2			16	
6	APART	0.3			17 5.02	ppm
7		0.3			18	
8		0.3			19	
9		0.2			20	
10		<0.1			21	
					22	
I 1	WETTED WIDTH	<0.1			23 CHANNEL FEATURE:	
2	1.4	<0.1			24 [illegible]	
3		<0.1			25	
4		<0.1			26 DISSOLVED OXYGEN:	
5	MEASUREMENTS	<0.1			.	
6	0.14 m	<0.1			. 5.36	ppm
7	APART	<0.1			.	
8		<0.1			n	
9		<0.1				
10		<0.1				

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [signature] **Date:** 6/26/07

Organization: BWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

1295 #3

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
TJ 1	WETTED WIDTH	<0.1			1 CHANNEL FEATURE:	
2	1.6	<0.1			2 RUN	
3		0.1			3	
4	MEASUREMENTS	0.1			4 DISSOLVED OXYGEN:	
5	0.16 m	0.1			5	
6	APART	0.1			6 4.14	ppm
7		0.1			7	
8		0.1			8	
9		<0.1			9	
10		<0.1			10	
					11	
K 1	WETTED WIDTH	<0.1			12 CHANNEL FEATURE:	
2	1.0	<0.1			13 RUN	
3		<0.1			14	
4	MEASUREMENTS	<0.1			15 DISSOLVED OXYGEN:	
5	0.10 m	<0.1			16	
6	APART	<0.1			17 5.73	ppm
7		<0.1			18	
8		<0.1			19	
9		<0.1			20	
10		<0.1			21	
					22	
					23	
					24	
					25	
					26	
					.	
					.	
					.	
					n	

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [signature] **Date:** 6/26/07

Organization: BWR CORP. Position: ENV. SCI.

WBID# 1295
Site# 2

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

Date & Time: [illegible]	Site Location Description (e.g., road crossing): [illegible]
Personnel (Data Collectors): [illegible]	
Current Weather Conditions: PRETTY [illegible] ~ 80°	Facility Name: ROCKVILLE WWTP
Weather Conditions for Past 10 days: FAIR / SUNNY	Permit Number: MO0103748
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: [illegible] Y: [illegible]

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	± _____ Feet or ± _____ Meters
PDOP		

Photos:

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
[illegible]	[illegible]	[illegible]	[illegible]		

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

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

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

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

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

Comments:

Indications of Human Use*: (attach photos)

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

Comments:

CHANNEL FEATURE %
RUN: ____ RIFFLE: ____
POOL: ____

* **Page Two – Data Sheet B for WBID #** ____:
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

If so, is there an obvious current? ☐ Yes ☐ No

Select one of the following channel features:

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

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

% Cobble	10 % Gravel	10 % Sand	75 % Silt	% Mud/Clay	5 % Bedrock

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

[illegible]

Water Characteristics*: (Mark all that apply.)

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

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

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

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

Surveyor's Signature: [signature] Date of Survey: 6/26/07

Organization: BWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

		Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
TA	1	WETTED WIDTH	[illegible]			1 CHANNEL FEATURE:	
	2	[illegible]	[illegible]			2 [illegible]	
	3		[illegible]			3	
	4	MEASUREMENTS	[illegible]			4 DISSOLVED	OXYGEN:
	5	[illegible] m	[illegible]			5	
	6	APART	[illegible]			6 [illegible]	ppm
	7		[illegible]			7	
	8		[illegible]			8	
	9		[illegible]			9	
	10		<0.1			10	
						11	
TB	1	WETTED WIDTH	<0.1			12 CHANNEL	FEATURE:
	2	4.0	[illegible]			13 [illegible]	
	3		[illegible]			14	
	4	MEASUREMENTS	[illegible]			15 DISSOLVED	OXYGEN:
	5	0.6[illegible] m	[illegible]			16	
	6	APART	[illegible]			17 [illegible]	ppm
	7		[illegible]			18	
	8		[illegible]			19	
	9		[illegible]			20	
	10		[illegible]			21	
						22 CHANNEL	FEATURE:
TC	1	WETTED WIDTH	<0.1			23 POOL	
	2	8.7	0.1			24	
	3		0.3			25 DISSOLVED	OXYGEN:
	4	MEASUREMENTS	0.2			26	
	5	0.5[illegible] m	0.3			. 7.51	ppm
	6	APART	0.3			.	
	7		0.4			.	
	8		0.4			n	
	9		0.5				
	10		0.2				

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [signature] **Date:** 6/26/07

Organization: BWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
D 1	WETTED WIDTH	<0.1			1 CHANNEL	FEATURE:
2	3.5	0.1			2 POOL	
3		<0.1			3	
4	MEASUREMENTS	<0.1			4 DISSOLVED	OXYGEN:
5	___ m	0.1			5	
6	APART	<0.1			6 7.52	ppm
7		0.1			7	
8		0.1			8	
9		<0.1			9	
10		<0.1			10	
					11 CHANNEL	FEATURE:
E 1	WETTED WIDTH	<0.1			12 POOL	
2	3.0	[illegible]			13	
3		[illegible]			14 DISSOLVED	OXYGEN:
4	MEASUREMENTS	[illegible]			15	
5	0.5 m	0.5			16 7.55	ppm
6	APART	0.3			17	
7		0.3			18	
8		0.3			19	
9		0.5			20	
10		0.3 0.1			21	
					22 CHANNEL	FEATURE:
F 1	WETTED WIDTH	0.2			23 POOL	
2		0.4			24	
3		0.4			25	
4	MEASUREMENTS	0.6			26 DISSOLVED	OXYGEN:
5	___ m	0.5			.	
6	APART	<0.1			. [illegible]	ppm
7		0.1			.	
8		0.1			n	
9		0.1				
10		0.2				

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [signature] **Date:** 6/26/07

Organization: BWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

1295 H

		Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
TG	1	WETTED WIDTH	0.1			1 CHANNEL FEATURE:	
	2	[illegible]	0.3			2 POOL	
	3		0.5			3	
	4	MEASUREMENTS	0.7			4 DISSOLVED OXYGEN:	
	5	1.02 m	0.9			5	
	6	APART	>1.0			6 7.[illegible]	ppm
	7		1.0			7	
	8		[illegible]			8	
	9					9	
	10					10	
						11	
TH	1	WETTED WIDTH	0.2			12 CHANNEL FEATURE:	
	2	[illegible]	.7			13 POOL	
	3		[illegible]			14	
	4	MEASUREMENTS	[illegible]			15 DISSOLVED OXYGEN:	
	5	1.5 m	>1.0			16	
	6	APART	>1.0			17 [illegible]	ppm
	7		0.9			18	
	8		0.7			19	
	9		0.5			20	
	10		0.5			21	
						22	
TI	1	WETTED WIDTH	0.4			23 CHANNEL FEATURE:	
	2	8.5	0.6			24 POOL	
	3		0.6			25	
	4		0.7			26 DISSOLVED OXYGEN:	
	5	MEASUREMENTS	>1.0			.	
	6	0.56 m	>1.0			. 7	ppm
	7	APART	0.9			.	
	8		0.6			n	
	9		0.4				
	10		0.3				

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [signature] **Date:** 6/26/07

Organization: BWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

1295 #4

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
TJ 1	WETTED WIDTH	0.2			1 CHANNEL FEATURE:	
2	9.6	0.5			2 POOL	
3		0.4			3	
4	MEASUREMENTS	0.7			4 DISSOLVED OXYGEN:	
5	0.92 m	0.4			5	
6	APART	0.4			6 7.30	ppm
7		0.4			7	
8		0.5			8	
9		0.5			9	
10		0.3			10	
					11	
K 1	WETTED WIDTH	0.5			12 CHANNEL FEATURE:	
2	7.3	0.5			13 POOL	
3		0.5			14	
4	MEASUREMENTS	0.6			15 DISSOLVED OXYGEN:	
5	0.73 m	0.5			16	
6	APART	0.5			17 5.60	ppm
7		[illegible]			18	
8		0.5			19	
9		[illegible]			20	
10		0.2			21	
					22	
					23	
					24	
					25	
					26	
					.	
					.	
					.	
					n	

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [signature] **Date:** 6/26/07

Organization: BWR CORP. Position: ENV. SCI.

WBID# 1295
Site# 5

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

Date & Time: [illegible]	Site Location Description (e.g., road crossing):
Personnel (Data Collectors):	
Current Weather Conditions: PARTLY CLOUDY ~85°	Facility Name: ROCKVILLE WWTP
Weather Conditions for Past 10 days: FAIR/CLOUDY	Permit Number: MO 0103748
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: 32.[illegible]556 Y: 09410082

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	± _____ Feet or ± _____ Meters
PDOP		

Photos:

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
1295-1,2	TRAN. J-K	1295-3,4	TRAN-B-A		

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

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

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

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

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

Comments:

Indications of Human Use*: (attach photos)

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

Comments:

CHANNEL FEATURE %
RUN: 5 RIFFLE: ____
~~RIFFLE~~ POOL: 50

* **Page Two – Data Sheet B for WBID #** 1295 : #5

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

If so, is there an obvious current? ☐ Yes ☐ No

Select one of the following channel features:

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

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

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

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

NONE [illegible]

Water Characteristics*: (Mark all that apply.)

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

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

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

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

Surveyor's Signature: [signature] Date of Survey: 6/26/07

Organization: BWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

		Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
TA	1	WETTED WIDTH	[illegible]			1 CHANNEL FEATURE:	
	2	7.5	0.4			2 [illegible]	
	3		0.3			3	
	4	MEASUREMENTS	[illegible]			4 DISSOLVED OXYGEN:	
	5	0.25 m	[illegible]			5	
	6	APART	[illegible]			6 [illegible]	ppm
	7		.7			7	
	8		0.6			8	
	9		0.4			9	
	10		0.4			10	
						11	
TB	1	WETTED WIDTH	0.6			12 CHANNEL FEATURE:	
	2	8.0	0.6			13 [illegible]	
	3		0.7			14	
	4	MEASUREMENTS	0.5			15 DISSOLVED OXYGEN:	
	5	0.25 m	0.5			16	
	6	APART	[illegible]			17 4.9	ppm
	7		0.7			18	
	8		[illegible]			19	
	9		0.2			20	
	10		0.1			21	
						22 CHANNEL FEATURE:	
TC	1	WETTED WIDTH	0.1			23 Run	
	2	9.7	0.3			24	
	3		0.4			25 DISSOLVED OXYGEN:	
	4	MEASUREMENTS	0.7			26	
	5	0.25 m	0.6			. 5.20	ppm
	6	APART	0.7			.	
	7		.4			.	
	8		0.4			n	
	9		0.3				
	10		[illegible]				

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [illegible] **Date:** 6/26/07

Organization: BWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

12<< #5

		Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
D	1	WETTED WIDTH	0.2			1 CHANNEL	FEATURE:
	2	5.3	[illegible]			2 RUN	
	3		[illegible]			3	
	4	MEASUREMENTS	[illegible]			4 DISSOLVED	OXYGEN:
	5	0.5[illegible] m	[illegible]			5	
	6	APART	[illegible]			6 5.[illegible]	ppm
	7		0.6			7	
	8		0.4			8	
	9		0.3			9	
	10		0.1			10	
						11 CHANNEL	FEATURE:
E	1	WETTED WIDTH	0.1			12 RUN	
	2	5.[illegible]	0.1			13	
	3		0.1			14 DISSOLVED	OXYGEN:
	4	MEASUREMENTS	0.3			15	
	5	0.[illegible] m	0.[illegible]			16 5.[illegible]	ppm
	6	APART	[illegible]			17	
	7		[illegible]			18	
	8		0.2			19	
	9		0.2			20	
	10		<0.1			21	
						22 CHANNEL	FEATURE:
F	1	WETTED WIDTH	0.3			23 RUN	
	2	7.5	0.3			24	
	3		[illegible]			25	
	4	MEASUREMENTS	[illegible]			26 DISSOLVED	OXYGEN:
	5	0.7[illegible] m	[illegible]			.	
	6	APART	[illegible]			. 5.[illegible]	ppm
	7		0.4			.	
	8		0.3			n	
	9		0.2				
	10		0.1				

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [signature] **Date:** 6/26/07

Organization: BWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
G 1	WETTED WIDTH	0.1			1 CHANNEL FEATURE:	
2	6.0	0.2			2 [illegible]	
3		0.2			3	
4	MEASUREMENTS	0.2			4 DISSOLVED OXYGEN:	
5	0.60 m	0.2			5	
6	APART	0.4			6 4.87	ppm
7		0.4			7	
8		0.4			8	
9		0.2			9	
10		0.2			10	
					11	
H 1	WETTED WIDTH	0.2			12 CHANNEL FEATURE:	
2	4.3	0.2			13 [illegible]	
3		0.4			14	
4	MEASUREMENTS	0.5			15 DISSOLVED OXYGEN:	
5	0.43 m	0.5			16	
6	APART	0.6			17 4.76	ppm
7		0.4			18	
8		0.2			19	
9		0.2			20	
10		0.2			21	
					22	
I 1	WETTED WIDTH	0.1			23 CHANNEL FEATURE:	
2	7.0	0.3			24 [illegible]	
3		0.3			25	
4		0.3			26 DISSOLVED OXYGEN:	
5	MEASUREMENTS	0.2			.	
6	0.70 m	0.2			. 5.09	ppm
7	APART	0.2			.	
8		0.2			n	
9		0.2				
10		0.1				

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [illegible] **Date:** 6/26/07

Organization: BWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

1295 #5

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
TJ 1	WETTED WIDTH	0.1			1 CHANNEL FEATURE:	
2	9.0	0.2			2 POOL	
3		0.2			3	
4	MEASUREMENTS	0.2			4 DISSOLVED OXYGEN:	
5	0.90 m	0.3			5	
6	APART	0.5			6 11.96	ppm
7		0.4			7	
8		0.4			8	
9		0.2			9	
10		0.2			10	
					11	
K 1	WETTED WIDTH	<0.1			12 CHANNEL FEATURE:	
2	8.5	0.1			13 POOL	
3		0.1			14	
4	MEASUREMENTS	0.3			15 DISSOLVED OXYGEN:	
5	0.55 m	0.4			16	
6	APART	0.4			17 5.25	ppm
7		0.5			18	
8		0.3			19	
9		0.2			20	
10		0.2			21	
					22	
					23	
					24	
					25	
					26	
					.	
					.	
					.	
					n	

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [signature] **Date:** 6/26/07

Organization: BNR CORP. Position: ENV. SCI.

WBID# 1295
Site# 6

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

Date & Time: 6/26/07 1530	Site Location Description (e.g., road crossing): BRIDGE CROSSING CR 456
Personnel (Data Collectors): [illegible]	
Current Weather Conditions: CLOUDY/[illegible]	Facility Name: ROCKVILLE WWTP
Weather Conditions for Past 10 days: [illegible]/CLEAR	Permit Number: MO0103748

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: 38.14561 Y: 094 05920

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	± _____ Feet or ± _____ Meters
PDOP		

Photos:

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
1295-[illegible]	[illegible]	1295-[illegible]	[illegible]		

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

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

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

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

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

Comments:

Indications of Human Use*: (attach photos)

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

Comments: CR 456

CHANNEL FEATURE %
RUN: 60 RIFFLE: ____
~~RIFFLE~~
POOL: 40

• **Page Two – Data Sheet B for WBID #** 1295 : #6

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

If so, is there an obvious current? ☐ Yes ☐ No

Select one of the following channel features:

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

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

20 % Cobble	70 % Gravel	5 % Sand	5 % Silt	% Mud/Clay	% Bedrock

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

SOME ALGAL AND MACROPHYTE GROWTH

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:

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: [signature] Date of Survey: 6/26/07

Organization: BWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

1295 #6

		Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
TA	1	WETTED WIDTH	<0.1			1 CHANNEL FEATURE:	
	2	5.6	0.1			2 Run	
	3		0.1			3	
	4	MEASUREMENTS	0.1			4 DISSOLVED	OXYGEN:
	5	0.56 m	0.1			5	
	6	APART	0.1			6 4.02	ppm
	7		0.1			7	
	8		<0.1			8	
	9		0.1			9	
	10		<0.1			10	
						11	
TB	1	WETTED WIDTH	<0.1			12 CHANNEL	FEATURE:
	2	6.0	<0.1			13 Run	
	3		<0.1			14	
	4	MEASUREMENTS	0.1			15 DISSOLVED	OXYGEN:
	5	0.60 m	0.1			16	
	6	APART	0.2			17 4.11	ppm
	7		0.1			18	
	8		0.1			19	
	9		0.1			20	
	10		0.1			21	
						22 CHANNEL	FEATURE:
TC	1	WETTED WIDTH	<0.1			23 Pool	
	2	3.2	0.1			24	
	3		0.1			25 DISSOLVED	OXYGEN:
	4	MEASUREMENTS	0.1			26	
	5	0.32 m	0.2			. 3.22	ppm
	6	APART	0.2			.	
	7		0.1			.	
	8		0.2			n	
	9		0.1				
	10		0.1				

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [illegible] **Date:** 6/26/07

Organization: BWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

1295 #6

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
1	WETTED WIDTH	0.1			1 CHANNEL	FEATURE:
D 2	2.5	0.3			2 RUN	
3		0.4			3	
4	MEASUREMENTS	0.4			4 DISSOLVED	OXYGEN:
5	0.25 m	0.2			5	
6	APART	0.2			6 4.30	ppm
7		0.1			7	
8		0.1			8	
9		<0.1			9	
10		<0.1			10	
					11 CHANNEL	FEATURE:
1	WETTED WIDTH	<0.1			12 RUN	
E 2	5.6	0.2			13	
3		0.2			14 DISSOLVED	OXYGEN:
4	MEASUREMENTS	0.2			15	
5	0.56 m	0.2			16 4.28	ppm
6	APART	0.2			17	
7		0.1			18	
8		0.1			19	
9		0.1			20	
10		<0.1			21	
					22 CHANNEL	FEATURE:
1	WETTED WIDTH	<0.1			23 RUN	
F 2	7.5	<0.1			24	
3		0.1			25	
4	MEASUREMENTS	0.1			26 DISSOLVED	OXYGEN:
5	0.75 m	0.1			.	
6	APART	0.1			. 4.13	ppm
7		0.2			.	
8		0.1			n	
9		0.1				
10		0.1				

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [signature] **Date:** 6/26/07

Organization: BLR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

Test #6

		Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
G	1	WETTED WIDTH	0.2			1 CHANNEL FEATURE:	
	2	2.0	0.2			2 POOL	
	3		0.2			3	
	4	MEASUREMENTS	0.3			4 DISSOLVED OXYGEN:	
	5	___ m	0.3			5	
	6	APART	0.2			6 3.47	ppm
	7		0.2			7	
	8		0.1			8	
	9		0.1			9	
	10		<0.1			10	
						11	
H	1	WETTED WIDTH	<0.1			12 CHANNEL FEATURE:	
	2	7.2	0.3			13 POOL	
	3		0.5			14	
	4	MEASUREMENTS	0.4			15 DISSOLVED OXYGEN:	
	5	0.72 m	0.4			16	
	6	APART	0.2			17 3.32	ppm
	7		0.1			18	
	8		0.1			19	
	9		<0.1			20	
	10		<0.1			21	
						22	
I	1	WETTED WIDTH	<0.1			23 CHANNEL FEATURE:	
	2	6.5	0.1			24 POOL	
	3		0.1			25	
	4		0.3			26 DISSOLVED OXYGEN:	
	5	MEASUREMENTS	0.5			.	
	6	0.63 m	0.5			. 3.13	ppm
	7	APART	0.4			.	
	8		0.3			n	
	9		0.3				
	10		0.2				

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [signature] **Date:** 6/26/07

Organization: BWR CORP. Position: ENV. SCI.

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

1295 #6

	Distance from Stream edge	Depth	Rank		Assigned Rank	Sorted depth
TJ 1	WETTED WIDTH	0.1			1 CHANNEL FEATURE:	
2	5.0	0.1			2 RUN	
3		0.3			3	
4	MEASUREMENTS	0.4			4 DISSOLVED OXYGEN:	
5	0.50 m	0.3			5	
6	APART	0.3			6 3.42	ppm
7		0.3			7	
8		0.2			8	
9		0.1			9	
10		< 0.1			10	
					11	
K 1	WETTED WIDTH	< 0.1			12 CHANNEL FEATURE:	
2	6.5	0.1			13 POOL	
3		0.2			14	
4	MEASUREMENTS	0.3			15 DISSOLVED OXYGEN:	
5	0.65 m	0.3			16	
6	APART	0.3			17 3.36	ppm
7		0.3			18	
8		0.2			19	
9		0.2			20	
10		0.1			21	
					22	
					23	
					24	
					25	
					26	
					.	
					.	
					.	
					n	

If there is an odd number of entries find middle rank [(n+1)/2]. The corresponding sorted value depth to the middle rank is the median depth.
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

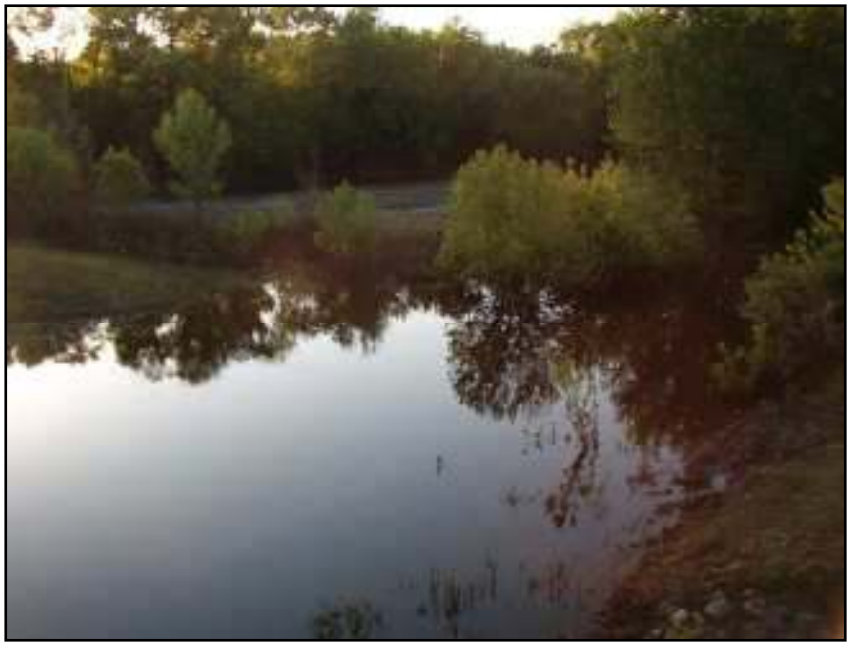
Signed: [illegible] **Date:** 6/26/07

Organization: PWR CORP. Position: ENV. SCI.

Panther Creek under flood conditions on 5-18-07.

Panther Creek under flood conditions on 5-18-07.

Panther Creek under flood conditions on 5-18-07.



Panther Creek under flood conditions on 5-18-07.

Panther Creek under flood conditions on 5-18-07.

Panther Creek under flood conditions on 5-18-07.

Downstream (Site 1) of Panther Creek

Downstream (Site 1) of Panther Creek

Upstream (Site 1) of Panther Creek

Upstream (Site 1) of Panther Creek

Downstream (Site 2) of Panther Creek

Downstream (Site 2) of Panther Creek

Upstream (Site 2) of Panther Creek

Upstream (Site 2) of Panther Creek

Upstream (Site 3) of Panther Creek

Upstream (Site 3) of Panther Creek

Downstream (Site 3) of Panther Creek

Downstream (Site 3) of Panther Creek

Upstream (Site 4) of Panther Creek

Upstream (Site 4) of Panther Creek

Downstream (Site 4) of Panther Creek

Downstream (Site 4) of Panther Creek

Downstream (Site 5) of Panther Creek

Downstream (Site 5) of Panther Creek

Upstream (Site 5) of Panther Creek

Upstream (Site 5) of Panther Creek

Upstream (Site 6) of Panther Creek

Upstream (Site 6) of Panther Creek

Downstream (Site 6) of Panther Creek

Downstream (Site 6) of Panther Creek