Missouri
Department of
Natural Resources

Use Attainability Analysis

for

WBID 2058 Pleasant Valley Creek

Submitted by
MEC Water Resources

To
Missouri Department of Natural Resources
Water Protection Program

On
May 29, 2008

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):	Pleasant Valley Cr.
Missouri Water Body Identification (WBID) Number:	2058
8-digit HUC:	07140103
County(ies), Listed Upstream to Downstream:	Crawford
Upstream Legal Description (from Table H):	14, 39N, 5W
Downstream Legal Description (from Table H):	24, 39N, 5W
Number of sites evaluated:	3
List all site numbers, consecutively upstream to downstream:	Site 1, Site 2, Site 3
Include a Site Location Map(s). The map must include all requirements detailed in the *Missouri Recreational Use Attainability Analyses: Water Body Survey and Assessment Protocol* (Section IV.D.8.a).	

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

Facility Name(s) and Permit Number(s):

BNSF – Cuba Yard

MO-0121177

III. UAA Surveyor (please **PRINT** legibly)

Name of Surveyor: T. Altnether, J. Veverka	Telephone Number: ~~573-8~~ 573-443-4100
Organization/Employer: MEC Water Resources	

Please verify that you have completed all sections of all data sheets, checked all applicable boxes, provided a map (that includes all requirments listed in the *Missouri Recreational Use Attainability Analysies: Water Body Survey and Assessment Protocol*) and that this form is complete.

Signed: _____ **Date:** 5/9/08

AUC 5-13-08

Pleasant Valley Creek WBID: 2058 1.7 mi.

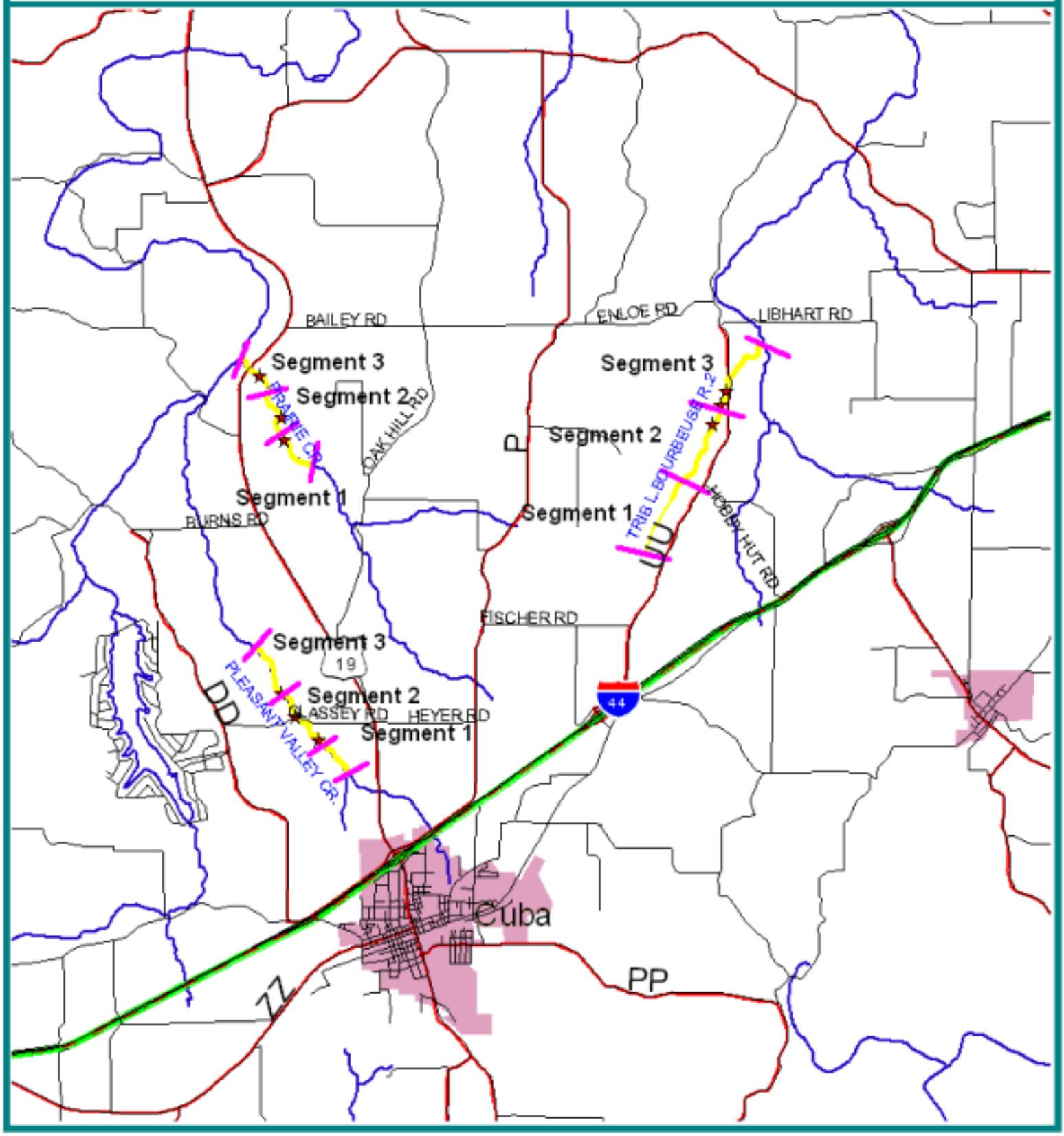
Prairie Creek WBID: 2059 1.5 mi.

Trib. to Little Bourbeuse R. WBID: 2065 2.0 mi.

Survey Reach

Survey Points

1 0 1 Miles



WBID # 2058

Site # 1

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 1 of 3)

(must be completed for each site)

Date & Time: ~~XE~~ TA 4/16/08 10:40	Location Description (e.g., road crossing): Upstream of Glassey Rd. Crossing
Stream Name: Pleasant Valley Cr.	
Current Weather Conditions: Clear, Warm, 64.6°F	Facility Name(s): BNSF- Cuba Yard
Weather Conditions for Past 10 days: Rain ~2.0 in. Clear	Permit Number(s): MO-0121177
Official Drought Conditions at time of this survey (search DNR home page for "drought"): 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~~ Y): 4217047	~~Northing~~ (UTM ~~Y~~ X): 0638502	Horizontal Accuracy: (EPE / FOM / PDOP) 4.2 Meters
Site 11	~~Easting~~ TA (UTM ~~X~~ Y): 4217088	~~Northing~~ (UTM ~~Y~~ X): 0638414	Horizontal Accuracy: (EPE / FOM / PDOP) 6.5 Meters

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
2058-1-1891	UPS	2058-1-1892	DNS		
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 the 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.)

N/A

Stream Name & WBID # Pleasant Valley Cr. 2058 Date of Survey 4/16/08

Site # 1

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 2 of 3)

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: Pasture/Riparian

Comments: N/A

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
☑ None of the above	Comments / Other: N/A			

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

20 % Cobble	30 % Gravel	50 % Sand	% Silt	% Mud/Clay	% Bedrock

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

Grasses, Abundant periphyton

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 affect another use.

Stream Name & WBID # Pleasant Valley Cr. 2058 Date of Survey 4/16/08

Site # 1

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 3 of 3)

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)
		N/A			

Comments: (Please record any additional comments here.)

N/A

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

Printed Names of Personnel Collecting Data: T. Altnether, J. VeVerka

Surveyor's Signature: [signature] Date of Survey: 4/16/08

Organization: MEC Water Resources Position: Water Quality Scientist

MWC 5-13-08

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Stream Name: Pleasant Valley Cr. Waterbody ID: 2058 Site #: 1

Estimated Channel Incision: 0 (m) (height between low bank width and water)

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

01 UTM X: 638502 UTM Y: 4217047 +/- 4.2 (meters)

11 UTM X: 638414 UTM Y: 4217098 +/- 6.5 (meters)

Average Stream Width: 7 (meters) Length of Survey Segment: 150 (meters)

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

Field Staff: TA, JV

Dissolved Oxygen

Date: 4/16/2008 Time: 10:40

Dissolved Oxygen: 7.69 (mg/L)

Dissolved Oxygen: 70.9 (% sat)

Specific Cond: 467.1 (µS/cm)

Water Temperature: 11.6 (°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	0.85	0.03	0.60	..04	0.07	0.68	0.54	0.27	0.71	0.15	0.65	0.21	0.68	0.16	1.30	0.30	0.81	0.27	0.67	0.05	0.30	0.09
2	1.70	0.06	1.20	0.03	1.40	0.75	1.08	0.32	1.42	0.27	1.30	0.34	1.36	0.28	2.60	0.62	1.62	0.43	1.34	0.04	0.60	0.20
3	2.55	0.19	1.80	0.05	2.10	0.78	1.62	0.27	2.13	0.28	1.95	0.75	2.04	0.43	3.90	0.70	2.43	0.63	2.01	0.07	0.90	0.27
4	3.44	0.22	2.40	0.05	2.80	0.74	2.16	0.23	2.84	0.23	2.60	0.90	2.72	0.59	5.20	0.86	3.24	0.58	2.68	0.13	1.20	0.41
5	4.25	0.13	3.00	0.10	3.50	0.79	2.70	0.22	3.55	0.15	3.25	0.61	3.40	0.67	6.50	0.63	4.05	0.52	3.35	0.26	1.50	0.50
6	5.10	0.03	3.60	0.15	4.20	0.56	3.24	0.16	4.26	0.07	3.90	0.54	4.08	0.64	7.80	0.81	4.86	0.43	4.02	0.16	1.80	0.62
7	5.95	0.00	4.20	0.16	4.90	0.37	3.78	0.15	4.97	0.00	4.55	0.39	4.76	0.55	9.10	0.96	5.67	0.26	4.69	0.08	2.10	0.27
8	6.80	0.20	4.80	0.19	5.60	0.26	4.32	0.09	5.68	0.00	5.20	0.42	5.44	0.34	10.40	>1.0	6.48	0.16	5.36	0.08	2.40	0.20
9	7.65	0.13	5.40	0.11	6.30	0.17	4.86	0.07	6.39	0.01	5.85	0.48	6.12	0.33	11.70	>1.0	7.29	0.08	6.03	0.08	0.70	0.23
Right Bank	8.50	0.00	6.00	0.00	7.00	0.00	5.40	0.00	7.10	0.00	6.50	0.00	6.80	0.00	13.00	0.00	8.10	0.00	6.70	0.00	3.00	0.00
Feature Type (riffle, run, or pool	Run		Riffle/Run		Pool		Run		Run		Run		Run		Pool		Run		Run		Run	

rwc

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

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine bv dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.1 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Surveyor's Signature: _____ Date: _____

WBID # 2058

Site # 2

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 1 of 3)

(must be completed for each site)

Date & Time: 4/16/08 11:15	Location Description (e.g., road crossing): Downstream from Glassy Rd. Crossing
Stream Name: Pleasant Valley Cr.	
Current Weather Conditions: Clear, Warm, 66.2°F	Facility Name(s): BNSF - Cuba Yard
Weather Conditions for Past 10 days: ~2.01 in Rain, Clear	Permit Number(s): MO-0121177
Official Drought Conditions at time of this survey (search DNR home page for "drought"): 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~~ Y): 4217444	~~Northing~~ (UTM ~~Y~~ X): 0638119	Horizontal Accuracy: (EPE / FOM / PDOP) 11.3 Meters
Site 11	~~Easting~~ (UTM ~~X~~ Y): 4217574	~~Northing~~ (UTM ~~Y~~ X): 0638055	Horizontal Accuracy: (EPE / FOM / PDOP) 4.6 Meters

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
2058-2-1893	UPS	2058-2-1894	DNS		
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 the 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.)

N/A

Stream Name & WBID # Pleasant Valley Cr. 2058 Date of Survey 4/16/08

Site # 2

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 2 of 3)

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: Pasture/Riparian

Comments: N/A

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
☑ None of the above	Comments / Other: N/A			

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

20 % Cobble	35 % Gravel	~~40~~ 45 % Sand	% Silt	% Mud/Clay	% Bedrock

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

Grasses, Abundant periphyton

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 affect another use.

Stream Name & WBID # Pleasant Valley Cr. 2058 Date of Survey 4/16/08

Site # 2

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 3 of 3)

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)
		N/A			

Comments: (Please record any additional comments here.)

N/A

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

Printed Names of Personnel Collecting Data: T. Altnether, J. VeVerka

Surveyor's Signature: [signature] Date of Survey: 4/16/08

Organization: MEC Water Resources Position: Water Quality Scientist

RUC 5-13-08

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Stream Name: Pleasant Valley Cr. Waterbody ID: 2058 Site #: 2

Estimated Channel Incision: 0 (m) (height between low bank width and water)

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

01 UTM X: 638119 UTM Y: 4217444 +/- 11.3 (meters)

11 UTM X: 638055 UTM Y: 4217574 +/- 4.6 (meters)

Average Stream Width: 7 (meters) Length of Survey Segment: 150 (meters)

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

Field Staff: TA, JV

Dissolved Oxygen

Date: 4/16/2008 Time: 11:15

Dissolved Oxygen: 8.35 (mg/L)

Dissolved Oxygen: 77.2 (% sat)

Specific Cond: 465.9 (µS/cm)

Water Temperature: 11.7 (°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	0.68	0.06	0.07	0.04	1.05	0.05	1.22	0.32	0.60	0.15	0.58	0.05	0.89	0.26	0.90	0.19	0.85	0.00	0.65	0.01	0.36	0.04
2	1.36	0.05	1.40	0.09	2.10	0.02	2.44	0.32	1.20	0.25	1.16	0.04	1.78	0.33	1.80	0.17	1.70	0.01	1.30	0.01	0.72	0.02
3	2.04	0.08	2.10	0.22	3.15	0.07	3.66	0.43	1.80	0.31	1.74	0.08	2.67	0.20	2.70	0.29	2.55	0.09	1.95	0.05	1.08	0.04
4	2.72	0.13	2.80	0.23	4.20	0.05	4.88	0.54	2.40	0.32	2.32	0.15	3.56	0.27	3.60	0.24	3.40	0.06	2.60	0.05	1.44	0.04
5	3.40	0.00	3.50	0.45	5.25	0.03	6.10	0.56	3.00	0.25	2.90	0.19	4.45	0.30	4.50	0.34	4.25	0.08	3.25	0.06	1.80	0.00
6	4.08	0.15	4.20	0.63	6.30	0.02	7.32	0.62	3.60	0.18	3.48	0.05	5.34	0.28	5.40	0.29	5.10	0.05	3.90	0.05	2.16	0.05
7	4.76	0.08	4.90	0.60	7.35	0.06	8.54	0.47	4.20	0.13	4.06	0.00	6.23	0.26	6.30	0.25	5.95	0.01	4.55	0.10	2.52	0.08
8	5.44	0.12	5.60	0.53	8.40	0.09	9.76	0.08	4.80	0.07	4.64	0.09	7.12	0.20	7.20	0.16	6.80	0.08	5.20	0.05	2.88	0.13
9	6.12	0.06	6.30	0.54	9.45	0.08	10.98	0.00	5.40	0.05	5.22	0.10	8.01	0.19	8.10	0.13	7.65	0.23	5.85	0.04	3.24	0.12
Right Bank	6.80	0.00	7.00	0.00	10.50	0.00	12.50	0.00	6.00	0.00	5.80	0.00	8.90	0.00	9.00	0.00	8.50	0.00	6.50	0.00	3.60	0.00
Feature Type (riffle, run, or pool)	Riffle		Run		Riffle		Run		Run		Riffle		Run		Run		Riffle		Riffle		Riffle	

rwc

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

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine bv dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.1 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Surveyor's Signature: _____ Date: _____

WBID # 2058

Site # 3

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 1 of 3)

(must be completed for each site)

Date & Time: 4/16/08 11:45	Location Description (e.g., road crossing): Downstream from Glassey Rd. Crossing
Stream Name: Pleasant Valley Cr.	
Current Weather Conditions: Clear, Warm, Breezy 68.2°F	Facility Name(s): BNSF – Cuba Yard
Weather Conditions for Past 10 days: Rain, Clear	Permit Number(s): MO-0121177
Official Drought Conditions at time of this survey (search DNR home page for "drought"): 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~~ Y): 4217810	~~Northing~~ (UTM ~~Y~~ X): 0637900	Horizontal Accuracy: (EPE / FOM / PDOP) 7.6 Meters
Site 11	~~Easting~~ (UTM ~~X~~ Y): 4217891	~~Northing~~ (UTM ~~Y~~ X): 0637816	Horizontal Accuracy: (EPE / FOM / PDOP) 9.0 Meters

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
2058-3-1895	UPS	2058-3-1896	DNS	2058-3-1897	Pool
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 the 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.)

N/A

Stream Name & WBID # Pleasant Valley Cr. 2058 Date of Survey 4/16/08

Site # 3

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 2 of 3)

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: Pasture/Riparian

Comments: N/A

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
☑ None of the above	Comments / Other: N/A			

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

20 % Cobble	50 % Gravel	20 % Sand	% Silt	% Mud/Clay	10 % Bedrock

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

Grasses, Abundant periphyton

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 affect another use.

Stream Name & WBID # Pleasant Valley Cr. 2058 Date of Survey 4/16/08

Site # 3

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 3 of 3)

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)
Pool	~~80~~ 800m	25m	45 m	0.8	1.0

Comments: (Please record any additional comments here.)

~~NA~~ N/A

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

Printed Names of Personnel Collecting Data: T. Altnether, J. VeVerka

Surveyor's Signature: [signature] Date of Survey: 4/16/08

Organization: MEC Water Resources Position: Water Quality Scientist

RWC 5-13-08

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Stream Name: Pleasant Valley Cr. Waterbody ID: 2058 Site #: 3

Estimated Channel Incision: 0 (m) (height between low bank width and water)

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

01 UTM X: 637900 UTM Y: 4217810 +/- 7.6 (meters)

11 UTM X: 637816 UTM Y: 4217891 +/- 9 (meters)

Average Stream Width: 9 (meters) Length of Survey Segment: 180 (meters)

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

Field Staff: TA, JV

Dissolved Oxygen

Date: 4/16/2008 Time: 11:45

Dissolved Oxygen: 8.52 (mg/L)

Dissolved Oxygen: 79.6 (% sat)

Specific Cond: 440.4 (µS/cm)

Water Temperature: 12.3 (°C)

Transect Cross-Section

Station	01		02		03		04		05		06		07		08		09		10		11	
	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1.08	0.07	1.10	0.18	0.79	0.07	0.68	0.04	0.66	0.05	1.60	0.17	0.70	0.16	1.51	0.16	0.80	0.37	0.78	0.60	0.70	0.09
2	2.16	0.12	2.20	0.13	1.58	0.17	1.36	0.07	1.32	0.12	3.20	0.43	1.40	0.26	3.02	0.26	1.60	0.46	1.56	0.61	1.40	0.17
3	3.24	0.10	3.30	0.08	2.37	0.26	2.04	0.11	1.98	0.21	4.80	0.55	2.10	0.33	4.53	0.33	2.40	0.53	2.34	0.55	2.10	0.27
4	4.32	0.13	4.40	0.04	3.16	0.32	2.72	0.18	2.64	0.32	6.40	0.38	2.80	0.46	6.04	0.46	3.20	0.47	3.12	0.60	2.80	0.29
5	5.40	0.05	5.50	0.00	3.95	0.38	3.40	0.15	3.30	0.32	8.00	0.33	3.50	0.60	7.55	0.60	4.00	0.55	3.90	0.54	3.50	0.32
6	6.48	0.04	6.60	0.00	4.74	0.33	4.08	0.20	3.96	0.25	9.60	0.23	4.20	0.74	9.06	0.74	4.80	0.69	4.68	0.37	4.20	0.37
7	7.56	0.07	7.70	0.05	5.53	0.26	7.76	0.18	4.62	0.08	11.20	0.38	4.90	0.79	10.59	0.79	5.60	0.70	5.46	0.19	4.90	0.31
8	8.64	0.08	8.80	0.02	6.32	0.21	5.44	0.16	5.28	0.00	12.80	0.54	5.60	0.74	12.68	0.74	6.40	0.47	6.24	0.13	5.60	0.26
9	9.72	0.12	9.90	0.01	7.11	0.21	6.12	0.15	5.94	0.03	14.40	0.47	6.30	0.76	13.59	0.76	7.20	0.24	7.02	0.04	6.30	0.23
Right Bank	10.80	0.00	11.00	0.00	7.90	0.00	6.80	0.00	6.60	0.00	16.00	0.00	7.00	0.00	15.10	0.00	8.00	0.00	7.80	0.00	7.00	0.00
Feature Type (riffle, run, or pool	Run		Riffle		Run		Run		Run		Run		Pool		Run		Pool		Run		Run	

rwc

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

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine bv dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.1 meter unless depth is too deep to measure (then record as > 1)

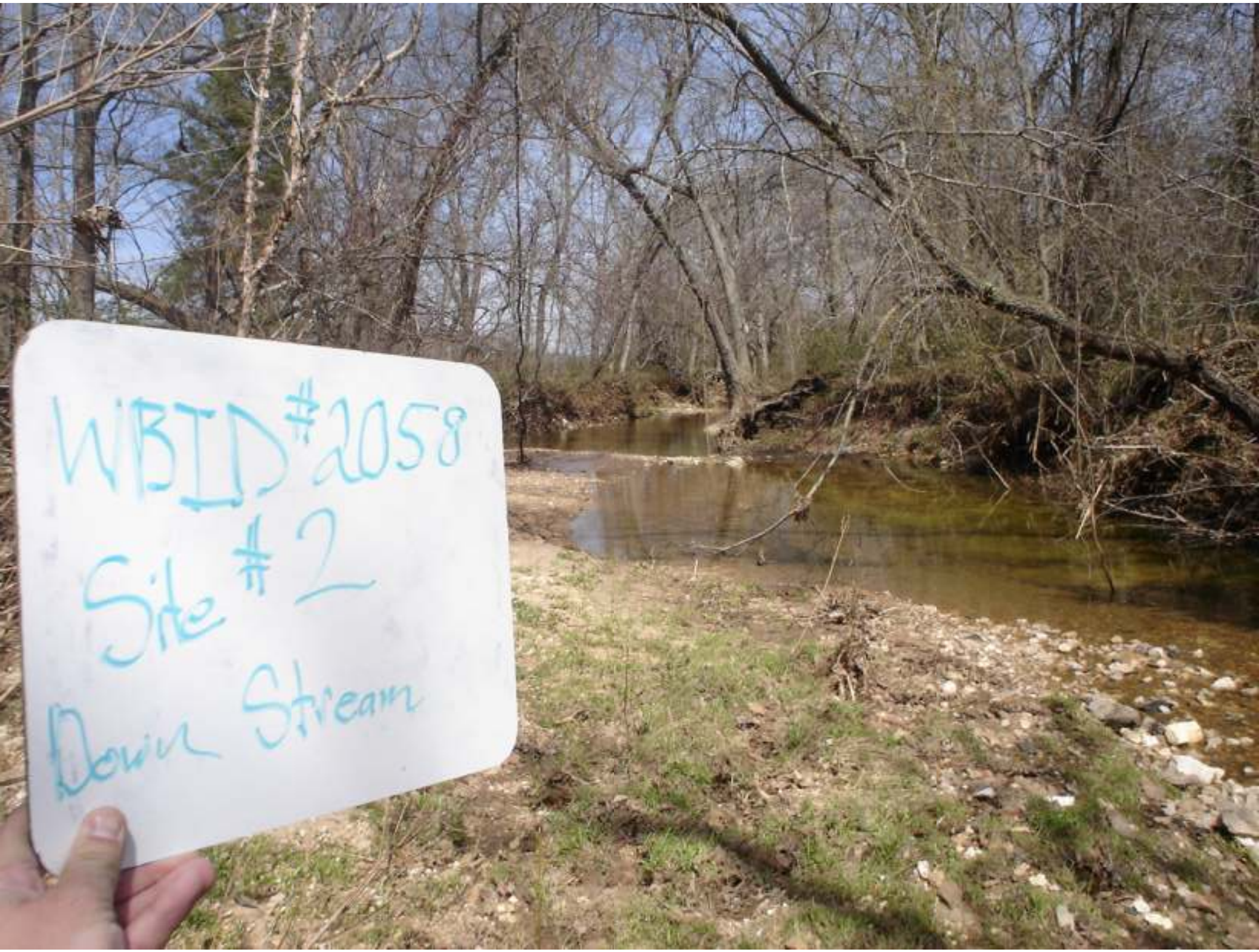
All measurements to be taken to the nearest 0.01 meter.

Surveyor's Signature: _____ Date: _____

WBID #2055
Site #1
Up stream

WBIIS #2055
Site #1
wn Stream

WBID #2058
Site #2
Up Stream


WBID #2058
Site #2
Down Stream

WBID #2058
Site #3
Up Stream

WBID #2058
Site #3
Down Stream

WBID #2058
Site #3
Before Tran #1
"Pool"