

Use Attainability Analysis

for

WBID 3697 Sand Creek

Submitted by

Missouri Department of Natural Resources Staff

To

Missouri Department of Natural Resources
Water Protection Program

Date Received: September 22, 2006

Field Data Sheets for Recreational Use Stream Surveys

7505
5P 22

Data Sheet A - Water Body Identification

Water Body Name: (from USGS 7.5' quad)	SAND Cr.
8-digit HUC:	0714010
Missouri WBID #:	3697
County:	T Jefferson Co
Upstream Legal Description:	Mouth - 18,42N,04E
Downstream Legal Description:	
Upstream Coordinates: (UGS 84, ddd.ddddd)	
Downstream Coordinates: (UGS 84, ddd.ddddd)	
Discharger Facility Name(s):	
Discharger Permit Number(s):	
Number of Sites Evaluated:	3
Name of Surveyor and Telephone Number:	Mary Clark 573-526-1002
Organization:	MONE
Position:	ESTD

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

Signed: Mary Clark Date: 9-6-2006

P.C.S. 145-148
 not accounted for
 148 is a ridge
 145 + 146 is pool
 145 is run

Field Data Sheets for Recreational Use Stream Surveys

EPF7

Data Sheet B - Site Characterization
 (A separate data sheet must be completed for each site)

all
 below WWT Pans & flow
 all above bridge on 30.
 E. of

Missouri WBID #: 3697-01	Site Location Description:	
Site GPS Coordinates: N 38.37736 / W 90.62578°	pool saddle. WWT P on det. rd 7 Hwy 30	
Date & Time: 10:25 9-5-06	Facility Name:	
Personnel: Mary Clark	Permit Number:	
Current Weather Conditions: sunny	Weather Conditions for Past 7 days:	
Photo Ids: Upstream:	Downstream:	Other:

Uses Observed*:

<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 type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

Sens. north margin & clearing us of WWT P
 Construction gain in up stream. Around WWT P
 a small diameter line across creek is cracked - could
 be a sewer line.

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"/> Fsnce	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

Evidence of Human Use*:

<input type="checkbox"/> Roads	<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"/> Rope swings	<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:				

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

*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

0.1.5
0.2.0
0.3.0
0.3.0
0.5
0.5
0.6
0.7
0.8
1.1 ft
0.4
11.5 ft
5.2
2.5

Stream Morphology:

Upstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): 10	Length (ft): 32	Avg. Depth (ft): 2.5	Max. Depth (ft): 3.0 to 3.5
<input type="checkbox"/> Flow Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft ³ /sec):		

Downstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): 11.6	Length (ft): 60 to bridge	Avg. Depth (ft): 0.52	Max. Depth (ft): 0.9 below
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft ³ /sec):		

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

5 % Cobble	5 % Gravel	85 % Sand	% Silt	5 % Mud/Clay	% Bedrock
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Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

some algae clow growing numerous + larger lirk in pool.

Water Characteristics*: (Mark all that apply.)

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

Comments: Please attach additional comments (including information from interviews) 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.

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

Signed: May Clark Date: 9-6-06

Organization: MBNK Position: ES III

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

EPR 12

Missouri WBID #: <u>3097-02</u>	Site Location Description <u>Cedar Hill rd crossing of sand Cr.</u>	
Site GPS Coordinates: <u>N38.37338/W090.62289</u>		
Date & Time: <u>9:38 9-8-04</u>	Facility Name:	
Personnel: <u>Mary Clark</u>	Permit Number:	
Current Weather Conditions: <u>Sunny</u>	Weather Conditions for Past 7 days:	
Photo Ids: Upstream: <u>142</u>	Downstream: <u>71</u>	Other:

Uses Observed*:

<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, frequency of use, photo-documentation of evidence of recreational uses, etc.)				

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 checked="" 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 type="checkbox"/> Other:	

Evidence of Human Use*:

Roads	<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"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input checked="" type="checkbox"/> Other: <u>Sewer line crosses creek</u>				

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

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0.6, 0.8, 0.8, 1.0, 1.3, 1.4, 1.3, 1.1, 0.8, 0.7
 $10 \overline{) 9.8} = 9.8$
 $\underline{80}$
 18

Page Two - Data Sheet B for WBID # _____

Stream Morphology:

Upstream View Physical Dimensions: *US of bridge*

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <i>1</i>	Length (ft): <i>2.2</i>	Avg. Depth (ft): <i>0.98</i>	Max. Depth (ft): <i>1.4</i>
<input type="checkbox"/> Flow Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Estimated (ft ³ /sec):	

*P10
142*

Downstream View Physical Dimensions:

<input checked="" type="checkbox"/> Riffle	Width (ft): <i>1.4</i>	Length (ft): <i>7</i>	Avg. Depth (ft): <i>0.14</i>	Max. Depth (ft): <i>0.2</i>
<input type="checkbox"/> Run	Width (ft): <i>4.0</i>	Length (ft): <i>9</i>	Avg. Depth (ft):	Max. Depth (ft): <i>0.2</i>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Flow Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Estimated (ft ³ /sec):	

*P12
143*

*nel none/14
5/7 0 = 0.15, 0.1, 0.2, 0.15, 0.1*

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

%Cobble	<i>24</i>	%Gravel	<i>24</i>	%Sand	<i>all sand under bridge + p 2015</i>	%Silt	Mud/Clay	%Bedrock
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nel 5ft in 6 sec

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

*thin layer of mud
over substrate*

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 type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other: <i>drabid</i>
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 type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) 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.

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

Signed: *Mary Clark* Date: *9-6-06*

Organization: *MONK* Position: *ESM*

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

EPE6

Missouri WBID #: <i>3697-03</i>	Site Location Description: <i>Sandy at Brookside + Wildwood</i>	
Site GPS Coordinates: <i>N 38.37299/W 098.62546</i>	Facility Name:	
Date & Time: <i>8:55 9-6-06</i>	Personnel: <i>Mary Clark</i>	
Current Weather Conditions: <i>Sunny</i>	Weather Conditions for Past 7 days: <i>—</i>	
Photo Ids: Upstream: <i>141</i>	Downstream: <i>144</i>	Other:

Cses Observed*:

<input checked="" 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, frequency of use, photo-documentation of evidence of recreational uses, etc.)				

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 checked="" type="checkbox"/> Urban areas	<input checked="" 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 type="checkbox"/> Other:	

Evidence of **Human** Use*:

<input checked="" type="checkbox"/> Roads	<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"/> Rope swings	<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: <i>Landscaping along banks, mail boxes</i>				

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

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1.7
1.8
1.0
1.1
1.3
1.4
1.4
1.7
1.1
1.0
1.9
1.0

Stream Morphology:

Upstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): 9	Length (ft): 45	Avg. Depth (ft): 1.1	Max. Depth (ft): 1.4 ft
<input checked="" type="checkbox"/> Flow present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft ³ /sec):		

pic 141

Downstream View Physical Dimensions:

<input checked="" type="checkbox"/> Riffle	Width (ft): 3.5	Length (ft): 27	Avg. Depth (ft): 0.18	Max. Depth (ft): 0.5
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft ³ /sec):		

pic 144

no velocity - still
0.2 + 0.2 + 0.18 + 0.15 + 0.1 = 0.73

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

40 % Cobble	18 % Gravel	4 % Sand	2 % Silt	% Mud/Clay	% Bedrock
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bricks + chunks of asphalt

Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment rite)

no macrophytes - little algae close growing on cobble 5%

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 checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<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 type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other: sk along edges

Comments: Please attach additional comments (including information from interviews) to this form.

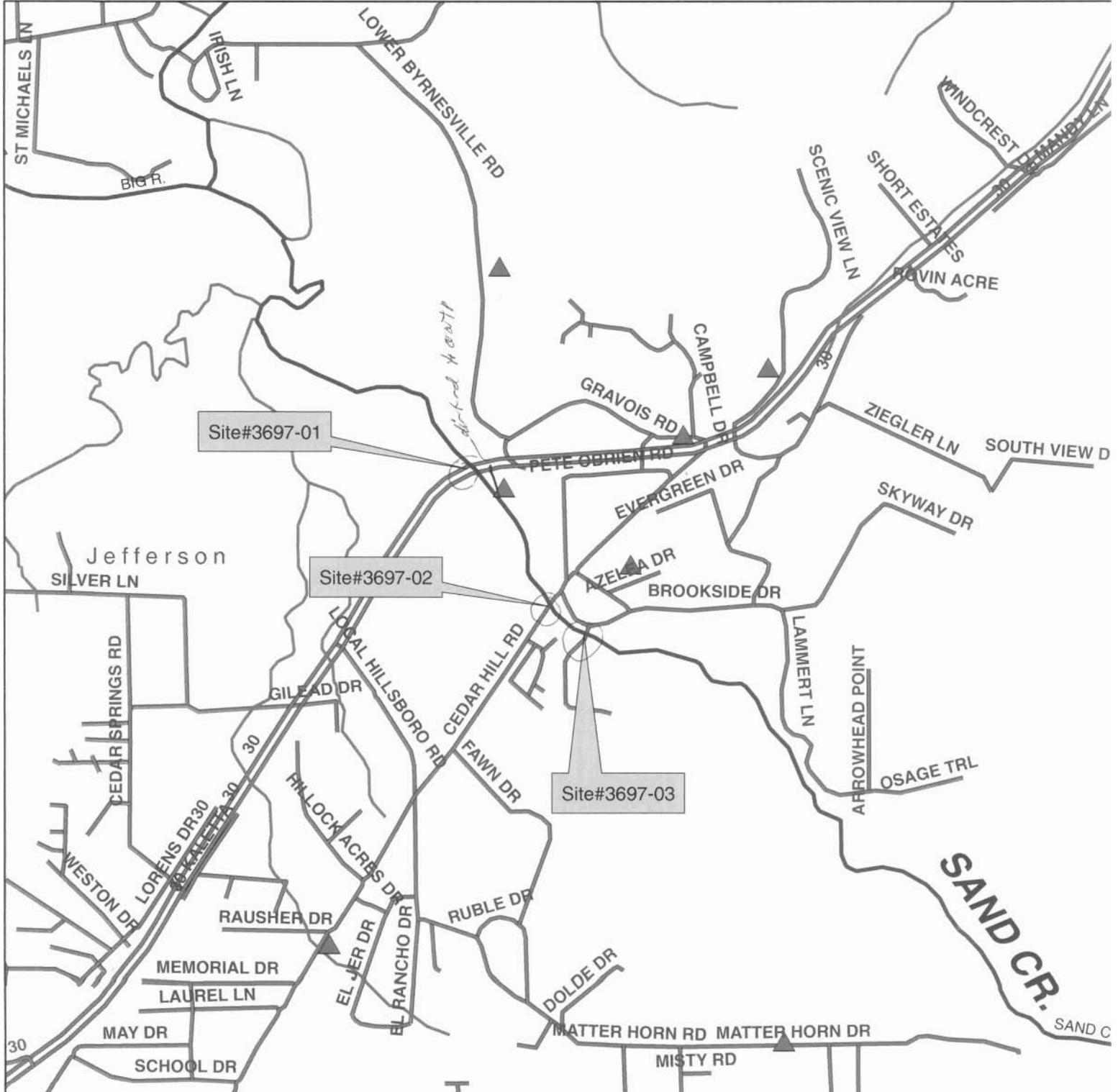
*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions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

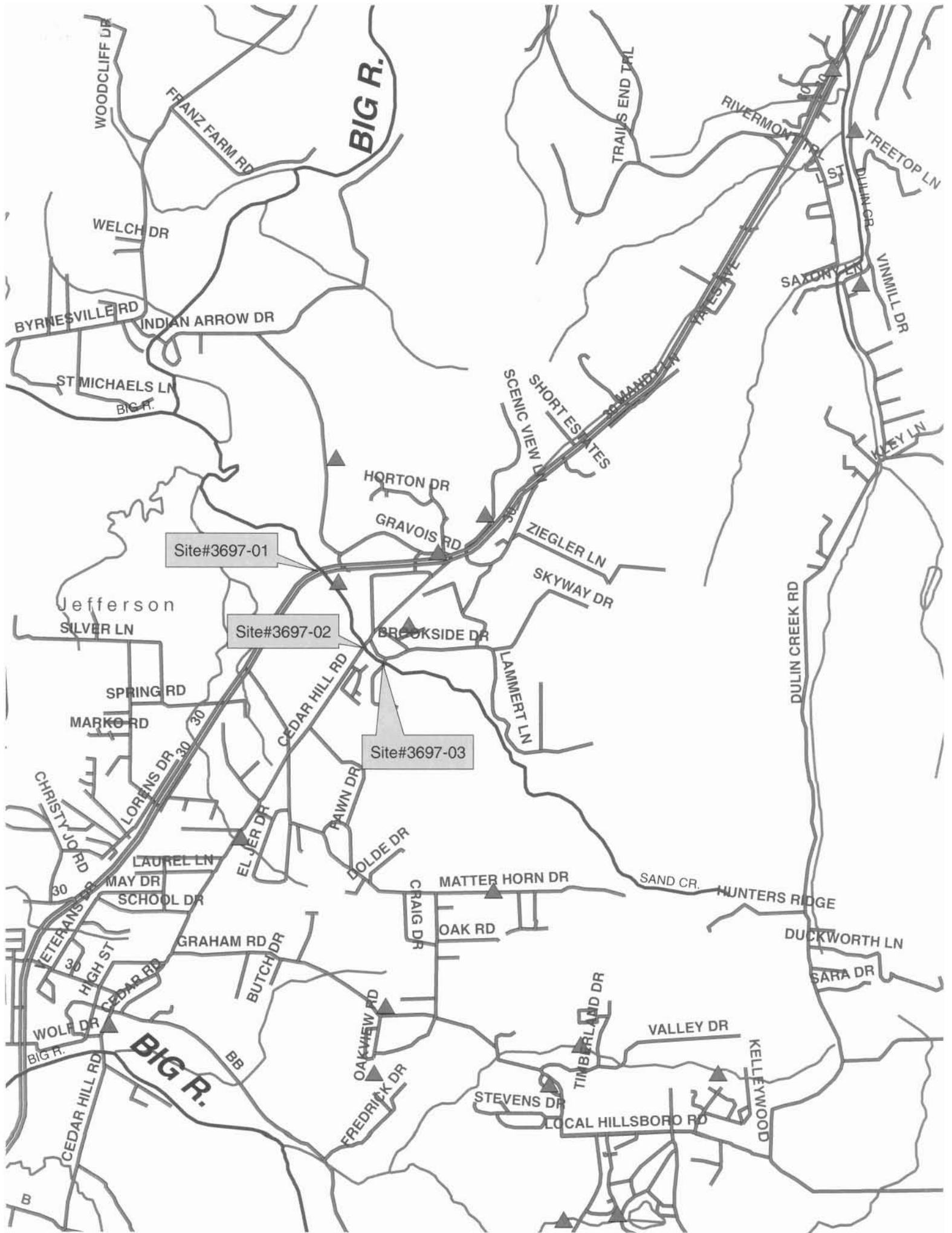
I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Mary Clark Date: 9-6-0

Organization: MDNR Position: ESA

Sand Creek -WBID 3697 (P - 1 miles) - Jefferson County





Site#3697-01

Site#3697-02

Site#3697-03

WOODCLIFF DR

FRANZ FARM RD

BIG R.

WELCH DR

TRAILS END TRL

RIVERMONT TRL

TREETOP LN

BYRNESVILLE RD

INDIAN ARROW DR

ST MICHAELS LN
BIG R.

SAXONY LN

VINMILL DR

SCENIC VIEW DR

SHORT ESSENTES

MANDY LN

HORTON DR

GRAVOIS RD

ZIEGLER LN

SKYWAY DR

Jefferson

SILVER LN

BROOKSIDE DR

CEDAR HILL RD

LAMMERT LN

DULIN CREEK RD

SPRING RD

MARKO RD

Site#3697-03

CHRISTY JORD

LORENS DR

CEDAR HILL RD

PAWN DR

DOLDE DR

MATTER HORN DR

SAND CR.

HUNTERS RIDGE

LAUREL LN

MAY DR

SCHOOL DR

EL JER DR

CRAIG DR

OAK RD

DUCKWORTH LN

SARA DR

VETERANS DR

GRAHAM RD

BUTCH DR

CRAIG DR

OAK RD

VALLEY DR

KELLEYWOOD

WOLF DR

BIG R.

OAKVIEW RD

FREDRICK DR

STEVENS DR

TIMBERLAND DR

LOCAL HILLSBORO RD

CEDAR HILL RD

BB

B

WBID 3697-01 – downstream



WBID 3697-01 – upstream



WBID 3697-01 – upstream



WBID 3697-02 – downstream



WBID 3697-02 – upstream



WBID 3697-03 – downstream



WBID 3697-03 – upstream

