



Missouri  
Department of  
Natural Resources

Use Attainability Analysis

for

WBID 1018 Kelley Branch

Submitted by  
SES, Inc.

To  
Missouri Department of Natural Resources  
Water Protection Program

Date Received: June 3, 2007

**Field Data Sheets for Recreation Use Stream Surveys**  
**Data Sheet A - Water Body Identification**  
 (For water body being surveyed)

**Water Body Information**

Water Body Name: Kelley Br.	WBID: 1018
8 digit HUC code: 10300102	County: boone
Upstream Legal Description 45N 15W SEC 3	
Downstream Legal Description 46N 15W SEC 34	
Number of Sites Evaluated 3	
List all site numbers, listed upstream to downstream 1,2,3	

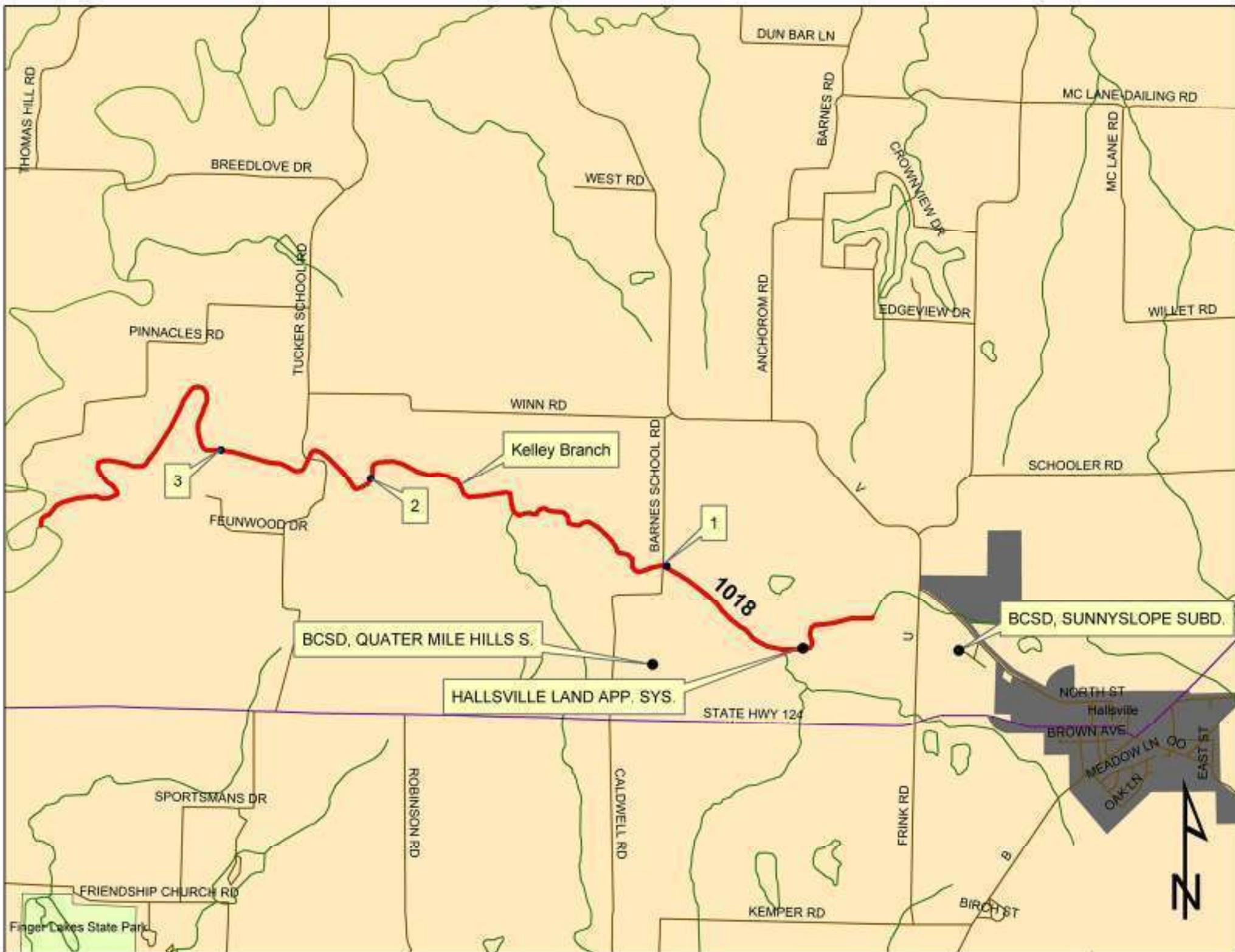
**Discharger Facility Information**

Discharger Facility Name(s): BCSD Quarter Mile Hills S.--BCSD Sunny slope --Hallsville Land App Sys
Discharger Permit Number(s): MO 0126446--MO 0095354--MO 0104990 respectively

**UAA Surveyor**

Name of Surveyor: Gelisa Gould	Telephone Number: 913-307-0054
Organization/Employer: SES, Inc.	
Position: Field Team Leader	

Signed: \_\_\_\_\_ Date: \_\_\_\_\_







**Data Sheet C: Cross-Sectional Depth Measurements (for estimation of median depth)**  
**(Median Depth Shown in Bold)**

Site # 1

Mark # 15

1018\_Kelley Branch\_Boone

	Depth (m)
<b>Transect 1</b>	<b>0.10</b>
Substrate:	0.50
sand	0.00
Water Clarity:	0.00
murky	0.00
Channel Feature:	0.00
pool	0.50
Channel Width:	0.50
5.00	0.00
<b>0.00</b>	<b>0.00</b>
<b>Transect 2</b>	<b>0.00</b>
Substrate:	0.00
sand	0.00
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.00
riffle	0.00
Channel Width:	0.00
2.00	0.00
<b>0.00</b>	<b>0.50</b>
<b>Transect 3</b>	<b>0.00</b>
Substrate:	0.00
sand	0.50
Water Clarity:	0.00
murky	0.50
Channel Feature:	0.10
pool	0.10
Channel Width:	0.10
3.00	0.50
<b>0.10</b>	<b>0.10</b>
<b>Transect 4</b>	<b>0.50</b>
Substrate:	0.20
sand	0.25
Water Clarity:	0.30
murky	0.25
Channel Feature:	0.25
pool	0.20
Channel Width:	0.15
4.00	0.10
<b>0.25</b>	<b>0.50</b>

	Depth (m)
<b>Transect 5</b>	<b>0.50</b>
Substrate:	0.20
sand	0.25
Water Clarity:	0.30
murky	0.30
Channel Feature:	0.25
pool	0.25
Channel Width:	0.20
6.00	0.20
<b>0.25</b>	<b>0.25</b>
<b>Transect 6</b>	<b>0.50</b>
Substrate:	0.10
sand	0.15
Water Clarity:	0.20
murky	0.25
Channel Feature:	0.30
pool	0.35
Channel Width:	0.35
6.00	0.25
<b>0.25</b>	<b>0.20</b>
<b>Transect 7</b>	<b>0.50</b>
Substrate:	0.10
sand	0.15
Water Clarity:	0.15
murky	0.20
Channel Feature:	0.25
pool	0.40
Channel Width:	0.35
5.00	0.30
<b>0.23</b>	<b>0.15</b>
<b>Transect 8</b>	<b>0.10</b>
Substrate:	0.20
sand	0.40
Water Clarity:	0.45
murky	0.60
Channel Feature:	0.85
pool	0.85
Channel Width:	0.65
7.00	0.60
<b>0.55</b>	<b>0.50</b>

	Depth (m)
<b>Transect 9</b>	<b>0.15</b>
Substrate:	0.25
sand	0.30
Water Clarity:	0.30
murky	0.40
Channel Feature:	0.40
pool	0.50
Channel Width:	0.55
4.00	0.40
<b>0.35</b>	<b>0.15</b>
<b>Transect 10</b>	<b>0.50</b>
Substrate:	0.10
sand	0.00
Water Clarity:	0.00
murky	0.00
Channel Feature:	0.00
pool	0.00
Channel Width:	0.15
4.00	0.20
<b>0.05</b>	<b>0.10</b>
<b>Transect 11</b>	<b>0.00</b>
Substrate:	0.00
sand	0.00
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.00
riffle	0.00
Channel Width:	0.00
1.00	0.00
<b>0.00</b>	<b>0.00</b>

<b>Site Median</b>	<b>0.20</b>	<b>Site Maximum</b>	<b>0.85</b>
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**Field Data Sheets for Recreational Use Stream Surveys  
Data Sheet B - Site Characterization  
(must be completed for each site)**

WBID 1018  
Site # 2

Date and Time: 5-23-07 4:50pm

Current Weather Conditions  
clear

Weather Conditions for Past 10 days:

Drought Conditions? No

Site Location (e.g. road crossing)  
tucker school rd. crossing

GPS Mark:  
16

Upstream Photo 44 Downstream Photo 45

**Uses Observed (Uses actually observed at time of survey) Circle**

Swimming	Skin Diving	SCUBA diving	Tubing
Water Skiing	Wind Surfing	Kayaking	Boating
Wading	Rafting	Hunting	Trapping
Fishing	<b>None of the Above</b>	Other	

**Surrounding Conditions**

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	<b>None of the Above</b>	Other	

**Indications of Human Use**

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



**Data Sheet C: Cross-Sectional Depth Measurements (for estimation of median depth)**  
**(Median Depth Shown in Bold)**

Site # 2

Mark # 16

1018\_Kelley Branch\_Boone

	Depth (m)
<b>Transect 1</b>	0.00
Substrate:	0.00
bedrock	0.00
Water Clarity:	0.50
clear	0.50
Channel Feature:	0.50
riffle	0.50
Channel Width:	0.00
5.00	0.00
<b>0.00</b>	<b>0.00</b>
<b>Transect 2</b>	0.00
Substrate:	0.00
bedrock	0.00
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.00
riffle	0.50
Channel Width:	0.00
8.00	0.50
<b>0.00</b>	<b>0.00</b>
<b>Transect 3</b>	0.50
Substrate:	0.50
bedrock	0.15
Water Clarity:	0.10
clear	0.15
Channel Feature:	0.15
pool	0.15
Channel Width:	0.10
8.00	0.10
<b>0.15</b>	<b>0.10</b>
<b>Transect 4</b>	0.50
Substrate:	0.10
bedrock	0.50
Water Clarity:	0.10
clear	0.15
Channel Feature:	0.50
pool	0.10
Channel Width:	0.15
8.00	0.50
<b>0.33</b>	<b>0.50</b>

	Depth (m)
<b>Transect 5</b>	0.00
Substrate:	0.50
bedrock	0.50
Water Clarity:	0.50
clear	0.10
Channel Feature:	0.10
pool	0.10
Channel Width:	0.10
6.00	0.10
<b>0.10</b>	<b>0.10</b>
<b>Transect 6</b>	0.00
Substrate:	0.00
bedrock	0.50
Water Clarity:	0.50
clear	0.00
Channel Feature:	0.10
pool	0.00
Channel Width:	0.00
7.00	0.50
<b>0.05</b>	<b>0.50</b>
<b>Transect 7</b>	0.35
Substrate:	0.30
sand	0.30
Water Clarity:	0.35
clear	0.40
Channel Feature:	0.40
pool	0.40
Channel Width:	0.35
7.00	0.25
<b>0.35</b>	<b>0.10</b>
<b>Transect 8</b>	0.50
Substrate:	0.10
sand/cobble	0.50
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.10
pool	0.10
Channel Width:	0.10
9.00	0.10
<b>0.10</b>	<b>0.15</b>

	Depth (m)
<b>Transect 9</b>	0.50
Substrate:	0.50
bedrock	0.00
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.00
riffle	0.00
Channel Width:	0.00
9.00	0.50
<b>0.00</b>	<b>0.00</b>
<b>Transect 10</b>	0.00
Substrate:	0.00
bedrock	0.00
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.00
riffle	0.50
Channel Width:	0.50
5.00	0.00
<b>0.00</b>	<b>0.00</b>
<b>Transect 11</b>	0.15
Substrate:	0.15
bedrock	0.15
Water Clarity:	0.10
clear	0.10
Channel Feature:	0.50
pool	0.00
Channel Width:	0.00
3.00	0.00
<b>0.10</b>	<b>0.00</b>
<b>Site Median</b>	<b>0.10</b>
<b>Site Maximum</b>	<b>0.50</b>





**Data Sheet C: Cross-Sectional Depth Measurements (for estimation of median depth)**  
**(Median Depth Shown in Bold)**

Site # 3

Mark # 17

1018\_Kelley Branch\_Boone

	Depth (m)
<b>Transect 1</b>	0.00
Substrate:	0.10
cobble	0.10
Water Clarity:	0.50
clear	0.00
Channel Feature:	0.50
pool	0.10
Channel Width:	0.10
7.00	0.00
<b>0.10</b>	<b>0.00</b>
<b>Transect 2</b>	0.00
Substrate:	0.00
cobble	0.00
Water Clarity:	0.50
clear	0.00
Channel Feature:	0.50
riffle	0.50
Channel Width:	0.15
7.00	0.50
<b>0.13</b>	<b>0.10</b>
<b>Transect 3</b>	0.50
Substrate:	0.00
cobble	0.50
Water Clarity:	0.50
clear	0.00
Channel Feature:	0.50
riffle	0.00
Channel Width:	0.50
7.00	0.10
<b>0.50</b>	<b>0.50</b>
<b>Transect 4</b>	0.00
Substrate:	0.00
cobble	0.50
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.00
pool	0.10
Channel Width:	0.20
12.00	0.15
<b>0.05</b>	<b>0.10</b>

	Depth (m)
<b>Transect 5</b>	0.00
Substrate:	0.00
cobble	0.50
Water Clarity:	0.10
clear	0.10
Channel Feature:	0.50
pool	0.00
Channel Width:	0.00
10.00	0.00
<b>0.05</b>	<b>0.20</b>
<b>Transect 6</b>	0.10
Substrate:	0.15
cobble	0.15
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.10
riffle	0.00
Channel Width:	0.00
6.00	0.00
<b>0.00</b>	<b>0.00</b>
<b>Transect 7</b>	0.50
Substrate:	0.00
cobble	0.10
Water Clarity:	0.50
clear	0.10
Channel Feature:	0.50
pool	0.00
Channel Width:	0.00
7.00	0.00
<b>0.05</b>	<b>0.00</b>
<b>Transect 8</b>	0.50
Substrate:	0.10
cobble	0.10
Water Clarity:	0.50
clear	0.20
Channel Feature:	0.15
pool	0.15
Channel Width:	0.50
7.00	0.15
<b>0.15</b>	<b>0.15</b>

	Depth (m)
<b>Transect 9</b>	0.20
Substrate:	0.40
bedrock	0.35
Water Clarity:	0.40
clear	0.45
Channel Feature:	0.45
pool	0.40
Channel Width:	0.40
10.00	0.30
<b>0.40</b>	<b>0.10</b>
<b>Transect 10</b>	0.00
Substrate:	0.15
bedrock	0.25
Water Clarity:	0.30
clear	0.40
Channel Feature:	0.30
pool	0.35
Channel Width:	0.30
11.00	0.35
<b>0.30</b>	<b>0.10</b>
<b>Transect 11</b>	0.50
Substrate:	0.15
bedrock	0.20
Water Clarity:	0.20
clear	0.25
Channel Feature:	0.25
pool	0.35
Channel Width:	0.40
11.00	0.30
<b>0.25</b>	<b>0.10</b>

<b>Site Median</b>	<b>Site Maximum</b>
<b>0.15</b>	<b>0.50</b>

**WBID# 1018**



**Site# 1 Photo ID# 41, Upstream**



**Site# 1 Photo ID# 40, Downstream**



**Site# 2 Photo ID# 44, Upstream**



**Site# 2 Photo ID# 45, Downstream**

**WBID# 1018**



**Site# 3 Photo ID# 47, Upstream**



**Site# 3 Photo ID# 46, Downstream**